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TRAFFIC USA

The Asian Trade in Bears and Bear Parts

Judy A. Mills
Christopher Servheen

WWF

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Washington, DC

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Finally, we wish to express our respect for the diverse and rich Asian cultures that we have had the opportunity to experience in the course of researching the bear trade.

EXECUTIVE SUMMARY

This report is the first systematic overview of the trade in bears and bear parts in Asia. Eleven Asian countries were examined to better understand the scope of the trade, the incentives that drive it, and potential ways of easing the pressure it now places on the world's eight bear species.

Bears have been valued in Asia for centuries as medicine and food. In some Asian countries, they also are favored as pets. During the 1980s, an illicit trade in bears and bear parts began making newspaper headlines in Asia and North America. This trade has since been recognized as a significant, though undefined, conservation problem.

The purpose of this TRAFFIC USA project was to look closely at the bear trade and the laws that regulate it, to detail the uses of bears and their parts, to examine the supply and demand that feed and incite the trade, and, finally, to paint a more complete picture of how the trade is affecting conservation of the world's bears.

THE IMPORTANCE OF BEARS IN ASIAN CULTURE

Bears are not revered in most Asian cultures, though exceptions to this rule can be found among certain indigenous peoples of Japan and Malaysia as well as in the folklore of Korea. For the most part, however, bears are not valued in Asian cultures as mythical or godlike creatures. Instead, they are valued almost exclusively as a commodity — food, medicine, adornment for home or body, or, in the case of many hunters, a means to fortify meager family incomes. Even the keeping of bears as pets is, in some Buddhist cultures, a way of earning not money but religious merit.

THE ECONOMIC VALUE OF BEARS

As a consequence of the role bears play as a commodity in Asia, they have far more value dead than alive. A bear in the wild, lacking any intrinsic ideological value, is worth nothing. In contrast, a bear taken from the wild automatically has dollar value. As this creature passes from hunter to wildlife dealer to pet owner or restaurant or medicine shop, its value multiplies. Ultimately, the bear's maximum economic worth is realized when it is reduced to its parts — gallbladder, paws, hide, claws, and meat — and sold. The sum of salable parts can make a dead bear worth $10,000 in Japan or much more in South Korea. Such dollar amounts, which only promise to escalate, will soon make Asian bears living in the wild an anachronism.

BEAR MANAGEMENT

Asia's bear species include the Asiatic black bear (*Ursus thibetanus*), brown bear (*Ursus arctos*), giant panda (*Ailuropoda melanoleuca*), sloth bear (*Melursus ursinus*), and sun bear (*Helarctos malayanus*). Little is known about any of these species, except the panda. Nonetheless, deforestation, human settlement, and agriculture continue to eat away at Asian bear habitat at a record pace. Because no one knows the ecological needs of Asian bears, little if any land management takes them into account. Even conservationists pay them little attention. Some Chinese wildlife specialists now concern themselves more with exploiting bears for their economic potential than with researching how to save those remaining in the wild.

POLICING THE TRADE

Even where there are national and international laws governing the wildlife trade, trade in bears and their parts continues mostly unabated. Enforcement is hampered by the impossibility of differentiating certain bear parts from those of unprotected animals. Much of the trade in bears and bear parts throughout Asia goes unreported in CITES trade data and customs statistics. Prosecution for bear trafficking is rare. Although punishment exists, it is almost always ineffectual as a deterrent.

FINDINGS OF THIS REPORT

During the course of this investigation, hundreds of bears and bear parts were seen. In some cases, parts were priced at many times the cost of gold. (A comparative summary of prices for bears and bear parts in 11 Asian countries is contained in appendix A.) Bears have achieved such high economic value that, in China, and North and South Korea, they are now being farmed for their parts and even milked of their bile while alive. In North America and the Soviet Union increasing numbers of bear carcasses are being found with only their salable parts missing.

It is the conclusion of this report that Asian devotion to the consumptive use of bears and the resulting economic worth of bears, combined with the continuing destruction of habitat mindless of bears' requirements, have placed Asian bear populations in severe jeopardy. A lack of effective legal protection allows the bear trade to flourish. There is also every indication that bear populations found in other parts of the world will increasingly feel pressure from the Asian demand for bears and bear parts.

CHAPTER ONE

INTRODUCTION

This report defines a wildlife conservation problem that needs further investigation and years of work toward a solution. In sum, the problem is that the demand for bears as medicine, food, and pets has put a price on the head of every bear, making all of them worth more dead than alive. During this project, we looked at how this fact came to be, how pervasive it is, and why — without some action on the part of conservationists, law makers, and law enforcement officials — the bear trade is not likely to go away before more bear populations become extinct.

There are eight bear species worldwide. They include the sun bear (*Helarctos malayanus*), Asiatic black bear (*Ursus thibetanus*), sloth bear (*Melursus ursinus*), brown bear (*Ursus arctos*), giant panda (*Ailuropoda melanoleuca*), American black bear (*Ursus americanus*), spectacled bear (*Tremarctos ornatus*), and polar bear (*Ursus maritimus*). All of these species, except the American black bear and polar bear, are thought to be in decline (Servheen 1990). Very little is yet known about the sun bear, Asiatic black bear, brown bear, and sloth bear of Asia, which probably have been hit hardest by the commercial trade. In the course of this investigation, seven bear species — excluding only the giant panda — were mentioned as sources of gallbladders for Chinese medicine.

In South Korea, bear gallbladders are priced, gram per gram, at up to 18 times the price of gold ($11.53 per gram at this writing). Whole bears carcasses are now being found in the forests of Canada (H. Heft, letter dated 4 March 1991) and the Soviet Union (T. De Meulenaer, TRAFFIC Europe memo dated 13 May 1991) with nothing but their gallbladders cut out. The demand for rare traditional medicines such as bear gall continues to grow with the increasing affluence of certain Asian countries (*Chung-Ang Il Bo*, South Korea, 16 July 1991). In China, much of the research on bears is focused on the extraction of medicinal bile from captive bears while almost nothing is known about the ecology of bears in the wild.

The bottom line for bears, especially those in Asia, is that they cannot maintain viable wild populations given the exorbitant value of their parts coupled with the pressures of deforestation and human encroachment into their habitat.

LAWS

International trade in most bear species is regulated, to some degree, by the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). The sun bear, Asiatic black bear, giant panda, Tibetan brown bear (*Ursus arctos pruinosus*), Himalayan brown bear (*Ursus arctos isabellinus*), and Mexican grizzly bear (*Ursus arctos nelsoni*) are protected under Appendix I of CITES. Appendix I includes "all species threatened with extinction which are or may be affected by trade. Trade in specimens of these species must be subject to particularly strict regulation in order not to endanger further their survival and must only be authorized in exceptional circumstances" (CITES 1973).

North American populations of brown bear are listed under Appendix II of CITES (except the Mexican grizzly bear mentioned above), as are all other brown bear populations, including the European populations outside the Soviet Union. The polar bear is also listed under Appendix II. Appendix II includes: "a) all species which although not necessarily now threatened with extinction may become so unless trade in specimens of such species is subject to strict regulation in order to avoid utilization incompatible with their survival; and b) other species which must be subject to regulation in order that trade in specimens of certain species referred to ... above ... may be brought under effective control" (CITES 1973).

Canada listed its population of the American black bear on Appendix III effective 18 September 1991. Appendix III of CITES includes "all species which any party identifies as being subject to regulation within its jurisdiction for the purpose of preventing or restricting exploitation, and as needing the cooperation of other parties in the control of trade" (CITES 1973). The Canadian listing specifically excluded skulls and skin with claws attached (that is, trophy parts).

The Soviet brown bear and American black bear outside of Canada are the only bear species not listed under CITES.

In addition to this protection, some CITES parties have domestic laws that both implement and enforce CITES protection. Some non-CITES nations also have domestic legislation that places limited controls on the bear trade.

LAW ENFORCEMENT

Not all countries involved in the bear trade are CITES parties, which makes monitoring patchy at best and, in some cases, leads to laundering of bears and bear parts across international borders. Among those nations that are CITES parties, enforcement is often inconsistent and, at times, seemingly nonexistent. Some parties have not yet passed implementing legislation, giving little or no legal means by which to enforce CITES.

In most countries, the domestic bear trade is either unregulated or underregulated. In nations that do have laws prohibiting the bear trade in-country, there may be differences between jurisdictions that allow laundering to take place.

These and other legal loopholes will be considered later in this report.

BEARS AS MEDICINE

While there are minor variations from country to country in the uses of bear parts as medicine in Asia, most grew from a common root: Chinese medicine.

Some sources say the use of bear fat as medicine can be traced back to Shen Nong (3494 b.c.), the father of Chinese medicine (Ma 1986). Bear gallbladder may have entered the Chinese pharmacopoeia as many as 3,000 years ago (J. Wu, letter dated 7 July 1990). The prescription of bear gallbladder first appeared in writing in Yao Xing Ben Cao's seventh-century text, *Materia Medica of Medicinal Properties* (Bensky and Gamble 1986). Other Chinese texts list as medicine bear meat, bear brain, bear blood, bear bone, bear paw and the spinal cord of the bear (Read 1984; Ma 1986). Among these, the gallbladder is the most prized, sitting alongside rhino horn, ginseng, and deer musk as one of the most coveted medicines in the entire Oriental pharmacopoeia.

According to the tenets of traditional Chinese medicine, bear gall is a "cold" medicine used to clear "heat" and detoxify various forms of "fire" (Bensky and Gamble 1986; Reid 1987). Signs of heat include a dry throat, red face, red eyes, dry stools, rapid pulse, fever, headache, thirst, and profuse perspiration. "Fire" can manifest itself externally as burns or internally as liver disease, for instance. "Cold" medications fight fever, lower body temperature, reduce inflammation, and detoxify.

Chinese medicine influenced the traditional medicines of Japan, Korea, and possibly those of the indigenous people of Southeast Asia. Chinese medical teachings reached Korea in the sixth century, then made their way to Japan in the eighth century (Otsuka 1976). As a result, bear gallbladder entered the pharmacopoeia of each culture. It is known as ***xiong dan*** in Chinese, ***ungdam*** in Korean, and ***kuma-no-i*** or ***yutan*** in Japanese (Bensky and Gamble 1986; E. Nozaki, letter dated 7 August 1990). It is also referred to as *fel ursi* in some Oriental medicine texts (Shi and Zhu 1985).

Fresh bear gallbladder looks like a balloon filled with water. Once dried, it more closely resembles a fig — bulbous at the base and tapering at the neck. Exteriors range in color from dull yellowish brown to shiny black. Some are no bigger than a small fig, while others reach the size of a human fist. Most weigh between 50 and 150 grams after drying. Bear gallbladders are treasured for their bile salts, which are often seen in dried, crystalline form in traditional medicine stores. These crystals look like crushed brown glass, though shades can vary from golden brown to almost black. Bile salts are taken in chunks melted on the tongue or downed with water, dissolved in liquor, mixed with other traditional ingredients such as musk and pearl, stuffed in capsules, molded into manufactured tablets, and blended into ointments and creams.

It is a common Western misunderstanding that traditional Asian medicines prescribe bear gall as an aphrodisiac. It may, in fact, be self-prescribed by some users for this purpose. However, traditional medicine physicians consider bear gallbladder to be one of the most powerful medicines. It most often is prescribed for chronic illnesses of the liver, gallbladder, spleen, and stomach, but normally only after other gentler, less expensive herbal remedies in the "cold" category have failed to cool the "heat" of disease. Usually only the wealthy can afford to use bear gall prophylactically as a tonic for general health.

Various traditional medicine texts list bear gallbladder as a treatment for high fever, convulsions, and delirium from extensive burns; for the burns themselves; for painful or swollen eyes; for swelling and trauma from sprains, fractures and falls from high places; and for hemorrhoids, jaundice, hepatitis, cirrhosis of the liver, diabetes, high blood pressure, heart disease, palsy and tooth decay (Beijing Medical College 1985; Bensky and Gamble 1986; Read 1982; *Taegu Daily Mail*, 12 April 1991). Bear gall is also an ingredient in a patented Japanese medicine for children, which promises relief from night crying, diarrhea, and more. "I have had very good success with this medicine in treating colic," American author and Oriental medicine doctor Bob Flaws wrote in his *Turtle Tail and Other Tender Mercies — Traditional Chinese Pediatrics* (1985). Another American Oriental medicine doctor, who is sensitive to the plight of endangered species, told us that there is nothing short of surgery as effective against hemorrhoids as ointment made from bear gall (D. Bensky, pers. comm., April 1990).

Bear gall also is used for medicine among the non-Chinese populations of Malaysia, Laos, Nepal, India, and Sri Lanka (see country chapters below).

BEARS AS FOOD

To the Chinese, food is culture, food is medicine, food is an economic indicator (Chang 1977). And "bear's paw is probably the most celebrated exotic ingredient in the history of Chinese food" (Lai 1984).

Bears were standard fare in the Ming Dynasty, 1368–1644 (Chang 1977). During the Ch'ing Dynasty (1644–1911), Chinese merchants entertained their most honored guests with a standard menu of 16 dishes, including bear's paw (Chang 1977). The emperors of China made famous a banquet of 100 dishes, among which was always found bear's paw (Wong 1986). *Imperial Dishes of China*, a contemporary cookbook of these royal delicacies, features Stewed Bear's Paw and Bear's Spareribs Cooked in Casserole. The meat of the bear's left front paw is said to be the sweetest and most tender part of the animal because, according to myth, this is the paw used to honey from bees' nests.

"Food, above all, is the constant cure and forms the foundation of Chinese preventative medicine" (Reid 1987). In this regard, bear's paw is thought to prevent colds (Read 1982) and "tonify" the body for general good health (N. Wang, pers. comm., July 1990). Bear meat aids rheumatism, weakness, beri-beri with paralysis, and general strength of mind and body (Read 1982).

Today, whether in Taiwan, Japan, South Korea, or Thailand, bear paw entrees can be found in Chinese restaurants that cater to an affluent clientele (see country chapters below). Increasing affluence has increased Asians' gustatory interest in both the tonic value and status appeal of bear paw and other traditional fare (*The Free China Journal*, 2 August 1990; *Asiaweek*, 16 February 1990). To the elite of Asia, ordering bear paw is the equivalent of ordering a $500 bottle of wine to impress Western dinner guests. Bear meat is also an increasingly popular novelty dish in Japan.

Certain indigenous and rural people of Southeast Asia also eat bears, but usually on an opportunistic basis for subsistence.

BEARS AS PETS

As cubs, bears are not unlike puppies in size, playfulness, and cuddliness. Therefore, they make hard-to-resist pets.

In Thailand, those of the Buddhist faith believe bringing in bears and other wildlife from the wild is a good deed that will earn them merit after death (see Thailand chapter). In Malaysian Borneo, forest workers collect cubs as they fell new tracts of forest (see Malaysia chapter). In Japan, the uncontrolled hunting of bears leaves many orphan cubs, which hunters usually sell (see Japan chapter). Many of these cubs then end up in people's homes, in cages, or on short chains in front of businesses and at tourist attractions that sometimes keep bears by the hundreds. Once they have grown unwieldy and their owners weary of them or need cash, most end up on the food and medicine markets. The pattern is predictable and almost always the same.

DEMAND

At one time there were so many bears and so few people that using bears as medicine, food, and pets probably did little harm to the sustainability of wild bear populations. Today, however, there are more than 1 billion Chinese and millions of other potential consumers of bears and bear parts. Demand has outpaced supply exponentially, creating "a blueprint for extinction."

CHAPTER TWO

METHODS

To better understand the bear trade in Asia, we visited China, Hong Kong, Japan, Laos, Macau, Malaysia, Nepal, Singapore, South Korea, and Taiwan between May 1990 and September 1991. We visited Thailand to investigate the bear trade in 1989, prior to initiating this project, though our findings from that trip are included in this report. We spent from one week to two months in each country, except for our one-day visit to Macau, and we visited several countries more than once.

We do not speak the languages of most of these countries, though many people we interviewed spoke English. When gathering information, we were usually accompanied by an interpreter.

In many cases, the fact that we were foreigners worked in our favor. In Singapore, in particular, government officials told us that we were able to obtain more information than Singaporeans because we were clearly not local law enforcement officers. Traditional medicine sellers and practitioners generally were enthusiastic about our interest in their health care methods, especially because we were from the "synthetic medicine"- dominated West. Sellers of bears and bear parts twice approached us simply because we were Westerners and, therefore, presumably able to afford such luxuries. We recognize that some of the prices quoted may have been inflated. In some Asian countries, foreigners are routinely charged more. Asian ways also dictate that the final, best price can only be reached as money is about to exchange hands. Because of legal restrictions and the impossibility of identifying real bear gall from fake, we chose not to buy anything other than a few samples in Malaysia.

In all countries, we made contact with government and conservation officials prior to our arrival. We always made it clear to them that we were interested in the impacts of wildlife and traditional medicine trades on bear conservation.

We did not impersonate law enforcement officials, nor did we pose as smugglers or brokers of bear parts. When we asked the price of bears and bear parts, we did so as consumers

Table 1.

Economic Indicators in Annual GNP per Capita for Consumer and Supplier Countries involved in the Bear Trade of Asia.

GNP per Capita:

Consumer Countries		*vs.*	*Supplying Countries*	
Hong Kong	$ 12,069		Bangladesh	$ 179
Japan	23,570		Bhutan	170
Singapore	12,718		Burma (Myanmar)	278
South Korea	5,569		Cambodia	110
Taiwan	7,990		China	325
			India	320
Average GNP / capita	$ 12,383		Indonesia	545
			Laos	180
			Malaysia	2,305
			Nepal	170
			Sri Lanka	407
			Thailand	1,418
			Vietnam	200
			Average GNP / capita	$ 508

Source: Adapted from *Asiaweek*, 26 April 1991.

or as individuals with a special interest in Asian medicine. In many cases, the discussions of price were facilitated by interpreters.

We selected medicine stores and restaurants at random. We routinely asked about the availability, origin, price, and uses of the bear parts sold. We also inquired about their popularity and the quantity and frequency of sales. We spent many hours listening to shopkeepers explain how they guaranteed the authenticity of the bear gall they buy and sell.

We chose our sample of countries to include what we term consumers and suppliers in the bear trade. These countries are not readily divided according to those that have wild bear populations and those that do not. Instead, they are better distinguished by their annual per capita gross national product (Table 1). Those countries classified as major consumers of bears and bear parts have an average per capita GNP of $12,383. In contrast, those countries that are primarily suppliers of bears and bear parts have an average per capita GNP of $508. Wealthier countries generally have more money than natural resources, while poorer countries tend to be rich in natural resources which are often sold for much-needed foreign exchange. Like the timber trade, the bear trade thrives on this inequity. Of our sample countries, only China and Japan play dual roles as both major consumers and major suppliers.

This report does not address the giant panda trade, nor does it discuss the trade in bear skins and trophies, which primarily involves brown bears and polar bears.

In presenting our findings, we prefaced the discussion of each country with some brief ecological and cultural background to help the reader understand the context in which the Asian bear trade is conducted. We were especially interested in the status of traditional medicine in consumer countries, as medicinal use of bears is the most potent force driving the commercialization of bears. Each country chapter, therefore, begins with a "Background" section, which includes a discussion of the status of bears, laws that protect bears, the status of hunting bears, and a summation of the country's medicinal, food, and pet trades. All this information was gathered and summarized before we visited each country. The information we gathered from personal observation, inquiry, or interview begins in each country chapter under the title, "The Bear Market."

All prices mentioned in this report are given in U.S. dollars, calculated at the exchange rate in use at the time the information was collected, except in two instances, which are clearly noted.

CHAPTER THREE

THE BEAR TRADE IN CHINA

BACKGROUND

Bear Biology

Three or possibly four bear species inhabit China. The brown bear is found in the northeast and northwest corners of the country and in the east-central region. The Asiatic black bear is also found in the northeast, northwest, and central regions of the country, as well as in the south's Yunnan Province and Hainan Island. Fewer than 1,000 giant pandas are spread among six separate and isolated populations in central China's Sichuan Province. The sun bear once lived in southern Yunnan Province, along the borders with Vietnam, Thailand, and Burma. However, the last documented specimen was captured in 1972, and the sun bear's survival in China remains in doubt (Servheen 1990).

Laws

International trade in China's bears and their parts is "controlled" under CITES, which China joined in 1981. Currently China has no legislation that specifically implements CITES. Wildlife is protected by the Wildlife Protection Law of the People's Republic of China, enacted in 1988 (Z. Wang, letter dated 20 July 1990; MacKinnon et al. 1989). All of China's bear species and subspecies are listed on Appendix I of CITES, except the northeastern brown bear, which is listed on Appendix II. Both the giant panda and sun bear fall under Class I of the Wildlife Protection Law, while the Asiatic black and Tibetan brown bears receive Class II protection. Class I animals are those under the protection of the central government, whereas Class II animals are under provincial protection. Using these two classes, China "strictly controls" the export of bears and their products. "However, conditions are not ripe for the prohibition of the exportation of bear gallbladder at present," we were told by Wang Zhanyun of the Endangered Species of Wild Fauna and Flora Import & Export Administrative Office in Beijing (letter dated 20 July 1990). Wang wrote in the same letter that, under the Wildlife Protection Law, the "capture" of wild bears of any species and the buying or selling of their parts *domestically* is "strictly forbidden." But, in the words of Canadian researcher Don Reid, who has worked on giant panda and Asiatic black bear projects in China, "there is a big gap between official pronouncement and reality" in China. Reid's comment was borne out in this investigation.

Law Enforcement

There reportedly is an agency in the central government charged with making surprise inspections of bear farms, restaurants in luxury hotels (where bear paws would most likely be served), meat factories, food-processing plants, and customs posts to ensure that the Wildlife Protection Law is enforced (Z. Gao, pers. comm., April 1991). A reward is offered to informants who report bear poachers to authorities. The Chinese certainly hand down the stiffest sentences for poaching to be found in the modern world, including some death sentences. However, it is clear from our findings and those of other researchers (Low 1991; A. Laurie, letter dated 6 June 1990; D. Reid, letter dated 25 August 1988) that trafficking in bears and other protected species is by no means stopped with these measures.

Hunting

Until 1989, the killing of bears for their parts was legal and encouraged by the government, according to Gao Zhong Xin of Northeast Forestry University's Department of Wildlife Science (pers. comm., April 1991). Since enactment of the Wildlife Protection Law, hunting of all bear species has been illegal in China, although provincial forestry departments issue permits allowing farmers to kill Class II bears that pose a threat to crops and livestock (J. Gong, pers. comm., April 1991). More than 100 people are serving jail time for illegally hunting giant pandas and other bear species (Z. Gao, pers. comm., April 1991; *The Economist*, 24 December 1988), while at least two have been executed for trafficking in giant panda pelts (A. Laurie, letter dated 6 June 1990). Nonetheless, wildlife experts feel the number of bears in the wild has continued to decline (Z. Gao, pers. comm., April 1991), and some officials believe poaching is rampant (government official, pers. comm., April 1991). In Yunnan Province alone, 20 Asiatic black bears were known to be illegally killed between the end of 1989 and October 1990 (*China News*, 30 October 1990). Villagers bring many orphaned cubs and adult bears injured in traps into forestry offices (A. Laurie, letter dated 6 June 1990). Other bears are killed by explosives planted in baits left in fields. Gao and other Chinese officials blame powerful economic incentives for illegal hunting. "The number one reason for illegal hunting is to get gallbladders for commercial use," Gao told us. "Another reason is to get the paw of the bear, which is very delicious to the Chinese people." Even farmers who are given special dispensation to kill pest bears sell the meat, gallbladders, and paws (government official, pers. comm., April 1991), which offers economic enticement to declare bears a nuisance.

Bears as Medicine

In Mandarin, bear gallbladder is *xiong dan* (Shi and Zhu 1985). As stated earlier, the use of bear bile as medicine in China dates back more than a thousand years.

The popularity of traditional Chinese medicine, *Chung-i*, has fluctuated in China throughout this century (Croizier 1976). An antitraditional movement in the early 1900s sought to wipe out the practice of traditional medicine altogether. That was followed by a counter drive to preserve traditional medical practices as a cultural treasure. The tug of war continued until the People's Republic was formed in 1949. The communists mandated preserving China's "medical identity" and condemned those skeptical of traditional medicine as "unprogressive and unpatriotic" (Croizier

1976). The constitution of the People's Republic of China specifies that China will promote both traditional and modern medicines (Chang and But n.d.). The result is a health-care system that mixes traditional and Western medicines, often within the walls of the same hospital or clinic, and sometimes alternately in the course of treating a single illness (Rosenthal 1981). Students of Western medicine study curricula in traditional medicine, and those studying traditional medicine must complete course work in Western medicine (Rosenthal 1981).

Seven factories in China produce 56 different medicines made with bear gallbladder (*Newsletter of the Heilongjiang Bear Association* 1990). These come in nine forms—capsules, powder, ointment, "oil compound," liquor, tablets, tincture, a wine mixture, and suppository. There are at least 30 major farms, and possibly hundreds of smaller operations, producing pure bile milked from live bears (see "Bear Farming" in this chapter).

Prices for bear gall vary widely in China. For instance, a kilo of dried galls from wild bears cost $3,200 in Shaanxi Province in 1990, while a kilo in Heilongjiang Province ran $5,000. The price of gallbladders was only $200 per kilo in 1979 (*Newsletter of the Heilongjiang Bear Association* 1990).

Based on personal interviews and mandates issued by the central government that call for increased production of bear bile for use in manufactured drugs (see "Bear Farming"), we feel devotion to the use of bear gall as medicine in China remains steadfast. "I believe in the curative powers of bear products," we were told by zoologist Wu Jia-yan, professor at Shaanxi Institute of Zoology and a member of the Bear Specialist Group of China (unrelated to IUCN/SSC). "I use them."

Bears as Food

China's Wildlife Protection Law made the serving of bear's paw in restaurants illegal as of March 1989 (J. Ma and others, pers. comm., April 1991). However, soft-fried black bear was still being served at the Beijing Zoo in March of 1990, according to a report in the *Business Times* of Singapore (23 March 1990). The state-run restaurant featured bear from northeastern China and Tibet, and the reporter described "slabs of deer and bear stacked to the ceiling" in the freezer. A restaurant worker was quoted as saying, "This is the place where people come to see animals, so doesn't it make sense that you can also try them?" In the fall of 1990, China's *Ming Pao* newspaper reported that officials of the agency in charge of enforcing wildlife laws in the city of Guangzhou were caught selling live Asiatic black bears to high-class restaurants (*Hong Kong Standard*, 22 October 1990). Their sideline was discovered when one of the bears escaped Guangzhou's White Cloud Restaurant and fled into a residential area. A total of eight bears were found in the city's finest eating establishments, and many could no longer walk or stand because they had been chained for several months. We also were told by a government official that bear paw still appears on menus in Harbin, Guangzhou, and other coastal cities (S. Yuan, letter dated 27 January 1991). A *Newsweek* reporter confirmed the continuing availability of bear paw entrees when she ate braised bear paw for a story published in that magazine on 29 July 1991.

Prices for raw bear paws, which weigh from one-half to two kilos, now range from $10 to $80 each (S. Yuan, letter dated 27 January 1991).

Bears as Pets

Keeping bears as pets is illegal in China. Nonetheless, people in the countryside continue to keep bears in the same capacity as watch dogs, to both deter strangers and warn of their approach (Q. Bai, pers. comm., April 1991). These captive bears reportedly are also used to assist with household chores, such as carrying laundry from river to home. When discovered, these animals are confiscated by government officials and used as breeding stock at bear farms, where thousands of wild and captive-bred bears now live in captivity (Z. Gao, pers. comm., April 1991) (see "Bear Farming").

THE BEAR MARKET

Because of the bureaucratic quagmire of the communist system and because of interest in learning about bear farming during our China stay, we traveled under official escort. We visited the city of Chengdu and parts of Sichuan Province in central China in the company of an official from the Sichuan Forestry Department. In the city of Harbin and parts of Heilongjiang Province in the northeast, we toured with faculty of Northeast Forestry University.

Our only opportunity to shop for bear parts and confirm information from correspondence about the bear trade came in Chengdu, as we spent the rest of our travels looking at or trying to gain access to bear farming operations. It is important to note that what we found greatly surprised our escort from the Sichuan Forestry Department, who insisted that the sale of bear parts was illegal and, therefore, difficult to find (J. Gong, letter dated March 1991).

Our first stop for bear galls was Chengdu's sprawling Traditional Chinese Medicine Trading Area, where hundreds of vendors sit row after row under a huge metal roof selling dog penises, ox galls, dried snakes, and all manner of natural remedies A letter from researcher Don Reid (dated 25 August 1988) reported that "medicine markets in Chengdu alone carry well over 50 individual specimens [of bear parts] at any one time." In a letter written nearly two years later, researcher Andrew Laurie wrote: "... the Chengdu medicine market is as full as ever of bear paws and skeletons" (6 June 1990). Either enforcement of the new Wildlife Protection Law has changed that situation dramatically or this largest of Chengdu's medicine markets had been warned of our visit, as we saw no bear parts openly for sale. Nonetheless, as we toured the market, two men approached and offered in Mandarin to sell us bear gall and deer musk. It is against the law to sell either substance. The men wanted $12,000 per kilo for bear galls. They stated that they "smuggle" bear galls from "local people" and keep the goods at an apartment across town. Most often they sell to Taiwanese tourists. They approached us because we were foreigners and only foreigners can afford such precious crude drugs in Chengdu.

Many of the traditional apothecaries are run by the state in China (J. Gong, pers. comm., April 1991). We checked three of these, but none had bear gallbladder on hand. Staff pharmacists said they rarely receive supplies of bear bile and that we must go to a bear farm to buy it. They said the standard price for farmed bear gall was $2,000 per kilo—one-sixth the price of galls from wild bears offered to us earlier on the black market. We suspect that a nonguided shopping expedition would have revealed more widespread availability of gallbladders from wild bears, as every time we were allowed to wander freely we ran into people selling bear parts.

We found bear paws for sale in a medicine store across the street from the Min Shan and Jin Jiang hotels, where most Taiwanese and other affluent foreign tourists stay while in Chengdu. Three paws were displayed prominently in a glass case. All were Asiatic black bear paws. Two were back paws; one a front paw. The shopkeeper said that they were "medicine for strength" and best used "for stew." He wanted $24 for 500 grams, and each weighed about that. He said he also had bear gallbladder at $9 per gram. He claimed to have a little more than a kilo on hand, all in the form of whole gallbladders. This open display in so visible a commercial district, combined with reports from other eyewitnesses (D. Reid, letter dated 25 August 1988; J. Wu, letter dated 7 July 1990; S. Yuan, letter dated 27 January 1991; Low 1991), demonstrates that China's black market in bear parts is both thriving and easily accessed.

In Harbin, we were given no time to shop for bear galls despite repeated requests for free time. We also asked repeatedly about eating bear paw, as Harbin diners reportedly consumed two tons of bear paws annually prior to passing of the Wildlife Protection Law (*The Economist*, 24 December 1988). Our escorts from Northeast Forestry University continually assured and reassured us that such fare had been wiped off Chinese menus with enactment of the new law in 1989 (J. Ma and others, pers. comm., April 1991). However, the Swan Hotel in Harbin not only sold bear paw but advertised the fact with a color snapshot of an uncooked paw on a plate in a lobby display case. The caption above the photograph promised the pictured paw was fresh from Harbin's Heilongjiang Province. The Swan Hotel gift shop also sold gift packs of bear bile salts (see "Bear Farming"), alongside numerous endangered catskin products.

We also visited Shenzhen, a "Special Economic Zone" just over the border from Hong Kong made up of more than 1,000 joint economic ventures between Hong Kong and mainland China. Shenzhen is infamous for the wild and sometimes endangered species sold at its open-air meat market, which is within walking distance of the Hong Kong border. "We believe the reason the Shenzhen market is located so close to the border is to assist in smuggling these animals into Hong Kong," David Dawson of the International Fund for Animal Welfare told the *South China Morning Post* (21 February 1988), after an investigation of meat markets in Shenzhen and Guangzhou. "There was no evidence of bears or bear parts in Shenzhen," Dawson wrote us of his journey (letter dated 15 January 1991). "There were however always bear paws and sometimes whole bear carcasses for sale in Qingping [another meat market in Guangzhou]."

In Shenzhen's market, we saw live civets (family Viveridae), a wild boar, a porcupine, a barking deer, a hedgehog, and numerous snake species, but no bears or bear parts. However, we were approached, in much the way we were approached in Chengdu, by a man offering, under his breath, bears for sale. For a whole bear he wanted $41 per kilo. He could deliver it to Hong Kong, if we wished. It would take a few days. The bear would be an Asiatic black from Guangxi Province (in the south of China, due north of Hainan Island). He had no bears on hand, he said. He had to special order them. "If you buy a gallbladder, there is no guarantee you'll get a *bear* gallbladder," he said. "I will give you the whole bear and slaughter it in front of you and give you the gallbladder." A whole bear would cost us between $1,400 and $2,700, we were told later in the day by the same individual. We would have to wait about three days. We would be notified by telephone about the time and location of delivery in Hong Kong. The dealer said most of his customers are Taiwanese.

Some mainland Chinese may buy bear parts during travel to Malaysia and other parts of Southeast Asia (S. Yuan, letter dated 27 January 1991), but few individuals are wealthy enough to buy bear parts at home (Gao, pers. comm., April 1990). We found no evidence that China imported bear parts, but plenty that it exports both galls and paws to Hong Kong, Taiwan, Korea, Japan, and parts of Southeast Asia (see chapters on these countries). Based on numerous interviews, we believe bear parts make their way to these countries in the luggage or on the person of foreign visitors, in the bags of mainland Chinese traveling abroad (see Korea [South] chapter), or smuggled in shipments of sea and perhaps air cargo. In 1990, a load of some 4,000 kilos of bear paws, representing approximately 1,000 dead bears, was intercepted as it was being readied to leave the Chinese port city of Dalian (Z. Gao, pers. comm., April 1991). The paws had been amassed by Chinese forestry officials working in concert with Japanese and South Korean buyers. In another incident, a food-processing plant was caught canning bear meat for illegal export to Japan (Z. Gao, pers. comm., April 1991). Hong Kong is said to be a key transshipment point for bear parts leaving China illegally (Z. Gao, pers. comm., April 1991). The latter is easy to believe as Hong Kong police and customs officials are so overwhelmed with the massive amounts of cargo passing through that even large shipments of heroin are known to pass through undetected each year (Posner 1988).

Foreigners didn't begin coming to China in large numbers to buy bear galls until about 10 years ago (Z. Gao, pers. comm., April 1991). But with the coming of the first wave, prices skyrocketed. (Recall the 1970 price of $200 per kilo of bear gall versus 1990's $3,000 to $5,000 per kilo mentioned above—a price increase that far exceeds the inflation rate.) "If nobody came from South Korea and Japan to offer so much money, they [hunters] wouldn't kill so many bears," Gao Zhong Xin of Northeast Forestry University told us (pers. comm., April 1991).

The prices foreigners are willing to pay make bear poaching a powerful temptation in a country where estimates of average annual income vary from $115 (*U.S. News & World Report*, 10 December 1990) to $500 (Z. Gao, pers. comm., April 1991). A whole adult bear can net a hunter $500 — the equivalent of at least one year's salary. A bear cub can bring up to $1,000. A single bear gall is worth from $100 to $200 to a poacher, and forest workers in remote areas are known to sell galls as a sideline (Z. Gao, pers. comm., April 1991).

The Korean Connection

More than 2 million ethnic Koreans live in China, most of them in the northeastern provinces of Heilongjiang and Jilin (*Wall Street Journal*, 11 December 1990). More than 14,000 of these Chinese-Koreans returned to their South Korean motherland in 1990 (see Korea [South] chapter). To both pay for their travel and make a profit, many of them brought Chinese medicines to sell in the streets of Seoul, including scores of bear gallbladders.

Coming the other way, tens of thousands of South Korean tourists come each summer to visit the Changbai Mountains in China's Jilin Province, which they believe to be the cradle of their civilization (*Wall Street Journal*, 11 December 1990). Also, increasing numbers of South Korean businessmen are setting up joint ventures with Chinese in Heilongjiang and Jilin provinces (*Wall Street Journal*, 11 December 1990; J. Ma, pers. comm., April 1991). Perhaps not so coincidentally, these two provinces also make up the heart of what may be China's best remaining bear habitat. "There is a tendency for people from South Korea who come to visit to want to carry bear gallbladders back to South Korea," we were told by Ma Jianzhang, who heads Northeast Forestry University's Department of Wildlife (pers. comm., April 1991). Exports of bear galls are now banned until 1995. There is a fine for smuggling galls and possible jail time if the value of the contraband exceeds the amount of the fine. However, that doesn't stop the outflow. Koreans still are caught trying to leave the country with gallbladders hidden under their shirts, some wearing belts custom-made for smuggling galls around their waists (J. Ma, pers. comm., April 1991).

Bear Farming

In May 1985, the China News Agency announced that the Chinese Crude Drugs Company was running short of raw materials for manufacturing medicines and planned to raise bears in captivity, for their bile (Nichol 1987).

At the First National Bear Conference in China, held in August 1989, papers were given on both pumping bile from living bears and the status of bear-breeding farms in China (*Newsletter of the Heilongjiang Bear Association*, 1990). Both Asiatic black bears and brown bears are farmed for their bile in China. As many as 8,000 bears were living on farms at the time of the 1989 conference (*Newsletter of Heilongjiang Bear Association*, 1990), and China continues to try to increase the number of bears born in captivity for the purpose of bile extraction (J. Cheng, Q. Bai, Z. Gao, pers. comm., April 1991).

"It is because of the decline in the black bear and the brown bear that the government encouraged the starting of the bear farms," we were told by Bai Qin-Yu, professor in the Animal Scientific Department of Jilin Agricultural University and author of a book on farming wild animals for medicinal byproducts (pers. comm., April 1991). The bear is among 30 wild animals now bred in captivity for use in Chinese medicine. There are 30 bear farms in China, each holding more than 100 bears, and countless smaller farms with no more than a handful of bears (Q. Bai, pers. comm., April 1991). We visited one farm in Sichuan Province with 450 bears, which claimed to be the largest of its kind in the country. According to both scientists and bear farm operators we spoke with, China now milks enough bile from live bears to satisfy *all* of the country's domestic medical needs (Q. Bai, pers. comm., April 1991) and could far exceed that if export of farmed bile were allowed by the central government (T. Tian, pers. comm., April 1991).

North Koreans have milked bile from live bears for more than 20 years (Bai 1986). The Chinese had hoped to learn the technique from North Korea, but were refused tutelage. China's Five-Year Plan for the late 1980s called on Chinese specialists to invent their own bear-milking method. Through trial and error, they did, though many bears died in the process, from infections and other mishaps associated with the surgery required to implant milking devices in the gallbladder. Though done under anesthesia, not all implantation surgeries were or are conducted by veterinarians, increasing the inherent risk of the operation (L. Xu, pers. comm., April 1991).

As of April 1991, Chinese scientists had published 94 papers in Chinese scientific journals on bears, 38 of which concerned bear gall and its extraction (L. Xu, letter postmarked 5 May 1991). One of these papers details a bile-milking experiment on zoo bears (Jin and Jin 1988). Methods of implantation and extraction are described, a cost/benefit analysis of milking bile from live bears is given, and the chemical compositions of wild and farmed biles are compared. However, the Chinese continue to treat the extraction of gall from live bears as something of a secret. In 1989, two representatives from South Korea's Wildlife Protection Association went to Beijing to learn about the extraction process, only to go home empty-handed (J. Lee, pers. comm., December 1990). Delegates at a bear conference in Harbin in August 1991 were also disappointed when they were taken to a bear farm but denied a look at the extraction process.

The first bear-farming operation we viewed was the *Deer Farm of Sichuan Chinese Medicine Corporation*, which also produces antlers from Sika deer for medicinal use. This 50,000 square-meter farm is located in Sichuan Province several hours drive from Chengdu. We were shown the facility by Tian Te-cheng, communist party leader for the farm. With 450 Asiatic black bears, this farm is the largest of its kind in China is and owned by the provincial government, according to Tian. Most others are run as collectives. Tian's farm extracts 500 kilos of bile annually from living bears, well below the farm's estimated production capability of more than 2,000 kilos. (While not specified by the Chinese, we assume these weights are of dried rather than liquid bile salts.) The farm employs 52 people and enjoys a profit margin of 10 percent.

Tian said the farm was started with 30 bears taken from the wild, and bile extraction began in 1984. He claimed 70 percent of the farm's current stock was born in captivity on the premises. Of the 450 resident bears, only 150 are milked of their bile at a given time, while the other 300 rest and breed. The bears' gallbladders are tapped when they reach three years of age and 95 kilos in weight. Then they are milked of their bile for three years, followed by a rest period of one or more years, depending on market demand for bear bile. On average, each bear produces three kilos of bile annually. Some bears live to be 20 years or more. One 20-year-old at the farm continues to give bile. Over its lifetime, a single farm bear will produce more bile than 100 wild bears killed for a single gallbladder, according to Tian.

This farm's technology for extracting bile is secret. Even Chinese from neighboring provinces are prohibited from seeing it. In the beginning, as the technique was being perfected, about 7 percent of the bears died in the process. Bacterial infections were a major problem. Mortality directly associated with the extraction process reportedly has been cut to zero.

There is a showroom at the farm, where bear bile crystals are sold by the five-gram vial for a little more than $5 a gram. Anyone can come here to buy bile. Tourists come from Taiwan, Germany, and the United States, but mostly from Japan. Some come in large tour groups, and some individuals buy as many as 50 vials each. There is no limit on how much they can buy. Some 30,000 tourists a year visit this showroom.

We were shown several buildings housing bears one to three years old. Each bear occupied a three by four foot iron cage, which was elevated off the cement floor. The larger bears nearly filled their cages and their movements were restricted to the point that some could not sit up straight. Some bears repeatedly threw their entire weight against their cages in order to attract human attention. Others bit the bars with their teeth or stuck paws out from between the bars. In addition to the discomfort of the cramped quarters, it was obvious the bears were mentally stressed from the lack of interesting activity. One building held 19 occupied cages, another more than 40, others more. When we asked to see the bears used for bile extraction, we were told that "the workers with the keys are not here." We asked to return when the keys returned, but our request was ignored.

We next visited the *Guanxian Institute for Animal & Herbal Medicines*, a bear "breeding" farm in the mountain foothills another hour's drive beyond the first farm. This facility is run by Guanxian, a city of 500,000, for "protection of wildlife" and "economic reasons." Chen Zheng-hua is the institute's director and Duan Dong-sheng its manager. The operation was just getting started, but someday it will be a research facility to look at ways to improve captive breeding rates while also increasing bile output. Once there are enough resident bears, the farm will also extract bile for profit. Every person we interviewed regarding bear farming mentioned conservation in passing en route to discussions of profitability.

Four years ago, the city was given a permit from the Sichuan Forestry Department to take 22 cubs from the wild to start this operation. Last year brought the first successful captive breeding, and four cubs were born this spring. Once there are 100 bears in residence, bile extraction will begin. Law dictates that only second-generation captive bears can be used for this purpose, we were told. The farm's operators will learn the extraction method from the farm we had visited previously.

"Bear bile is so popular that, if we can't find an efficient way to produce it, the people will go shoot the bear," one city official said. When the Wildlife Protection Law made the taking of gallbladders from wild bears illegal in March 1989, another source had to be found, we were told. Bear farming both eases poaching pressure and boosts the local economy, Guanxian officials said.

The farm itself is outside the city in a former army outpost. It has spacious play grottos, quiet birthing rooms, and a semiwild play area — all surrounded by forest and intended to encourage fast and fruitful reproduction. There were, however, some bears already living there in what seem to be standard three to four foot elevated iron cages.

A week later, in Harbin, we visited the *Heilongjiang Provincial Traditional Medicine Corp.*, a factory and wholesale outlet for Chinese medicines. This was a new factory still in its "experimental phase," but already it had produced six million pieces of medicine in the month of April 1991, according to the supervisor who was our guide. The factory has a bear-bile farm of about 100 animals associated with it, which is able to satisfy all of the factory's needs for raw materials.

We then visited the *Harbin Herbs Corp.*, a Chinese medicine retail outlet in downtown Harbin, which sells bile salts farmed from live bears. Hei Bao Brand Bear Bile Powder was prominently displayed in a glass case. Five-gram vials containing loose bile crystals cost $26 and were nestled in velvet-lined brocade boxes of five vials each. The amber glass vials were sealed in the same manner as liquor bottles and came with a certificate of authenticity issued by the central government in Beijing. We were told by Harbin Herbs Corp. managers that the store sells about a half-kilo of bear bile each year, if they are "lucky." Despite repeated questioning, we were unable to establish whether luck had to do with the supply they were able to obtain from bear farms or customer demand for the product.

We continued to ask our Harbin hosts to see the bile-making process firsthand, and continued to receive promises that we would be allowed this privilege. After a week, we were taken to *The Bear Class Test Farm of Heilongjiang Shanhe Forest Farm*, about an hour's drive from Harbin. We talked with Wang Dong, the farm's leader, and Li Jing-hua, vice-chief. The farm was established in 1984 with 19 bears, many of which were confiscated or bought from hunters. The farm now houses 60 bears, 17 of which were born there. Of the total, 22 are Asiatic black bears and the rest are brown bears, except one, which is a hybrid captive-bred from a black bear mother and a brown bear father. The farm is a joint venture funded by the provincial wildlife unit, the medicine factory we had visited earlier in Harbin, the Forest Bureau of Harbin, and the forest bureau of another city near Harbin. Biologists, biochemists, and physiologists come to the farm to conduct research on the bears and help the farm solve problems associated with captive breeding and bile extraction. The farm does not share its extraction methods with other farms.

We were shown a breeding grotto occupied by male and female bears of both species, a play corral for the cubs of the year, and another grotto in which subadults exercise and play together. Then we were shown photographs of the bile-milking process. One pictured a bear splayed out under anesthesia while workers attached a fistula to its gallbladder through a six-inch incision in its abdominal area. Another showed a worker feeding a large brown bear in a small iron cage from a pan while another worker underneath the cage held a funnel to drain liquid bile from the surgically implanted tap. This was the "old" method, we were told. A snapshot of the "new" method showed another large brown bear standing in a small iron cage, eating from a pot held by one worker as others busied themselves extracting bile through a small side door accessing the bear's right flank.

When a bear is not being milked of its bile, it is prevented from tearing out the fistula by a steel plate strapped tightly around its middle. We were shown the ovens where the cola-colored bile liquid is slowly dried into a crystalline sheet and, finally, crushed and placed in the vials we had seen in stores. There are 10 bears involved in the extraction process at any one time at this facility. However, despite our adamant insistence, we were denied access to the milking room. We could not see the process because it was in the experimental stage, we were told. Then we were told that our presence would disturb the bears.

Later we were informed by different sources that we were not allowed to see bears being milked of their bile because the process is both a secret and stressful to the animals (J. Cheng and Y. Ma, pers. comm., April 1991). Cheng Jizhen, associate research professor at the Heilongjiang Academy of Science's Institute of Natural Resources, explained some of the other details of the process: As cubs, farmed bears are acquainted with humans. They are taught to sit, stand, lie down, or whatever tricks are most useful in the milking process. These behaviors are always rewarded with food treats. Some bears do manage to yank out their milking tubes, in which case the implantation surgery is repeated. The small cages make life unpleasant for the bears living on bile farms, according to Cheng. Ma Yiqing, director of the Department of Zoology at the Institute of Natural Resources, said he felt the process was somewhat painful for bears because of the chronic inflammation around the site of the milking tube. (See Korea [South] chapter for more information.)

In April 1991, the Chinese government made it illegal to farm bears without a license (Q. Bai and others, pers. comm., April 1991.) Licenses for keeping animals listed as Class II under the Wildlife Protection Law, such as Asiatic black and brown bears, are obtained on the provincial level. Our sources told us that permits are now being issued only for the milking of second-generation captive-bred bears. We were unable to learn the number of permits issued to date.

The priority currently set before Chinese scientists is to both increase the output of bile and boost the rate of captive breeding among farmed bears. "The bear farm managers ask us to increase bile and babies — from the *same* bears," Gao Zhong Xin told us. "This is very difficult." Gao feels captive breeding is complicated by the small cages and resulting constricted movement bears endure at farms. Even mothers who manage to give birth suffer high mortality among their offspring, which may be a side effect of the stress of cramped quarters or the bile extraction process itself (Gao, pers. comm., April 1991).

We feel China's focus on bear farming has taken much-needed scientific effort away from the study of the country's wild bears. Almost no research has been conducted in China to learn about the basic ecology of bears in the wild. Even the internationally publicized research on the giant panda initiated by WWF has come to a virtual halt. "Field" research is almost exclusively conducted on bears from bear farms and zoos and much of it is focused on how to exploit bears more effectively for commercial and/or medicinal purposes. A book by a respected Chinese professor of animal science instructs readers on how to dry bear gallbladders for medicinal use (Bai 1986), while a scientific paper by the country's most noted bear expert describes the bears of China and then touts the economic, medicinal, and culinary value of their various parts (Ma 1986). Without the interest and financial commitment of the Chinese government to study the status and biology of the wild bears for something other than economic benefit, China's bears may disappear from large areas of their range. The increasing emphasis on bear farming has depleted and continues to deplete the limited funding and manpower available in China for bear conservation.

CHAPTER FOUR

THE BEAR TRADE IN HONG KONG AND MACAU

HONG KONG: BACKGROUND

Bear Biology

A few Asiatic black bears may have lived in the area that is now Hong Kong prior to establishment of the colony in 1843. However, there are no bears native to Hong Kong's 1,064 square kilometers at present, though several bears reportedly crossed the border into the New Territories from mainland China during the 1980s (*South China Morning Post*, 2 March 1987). All were Asiatic black bears and all were sent back to the mainland.

Laws

Hong Kong is a party to CITES by virtue of being a dependent territory of the United Kingdom, which acceded to CITES in 1973. In addition, "the import, export and possession of endangered species of bears or their readily recognizable parts and derivatives are controlled under the Animals and Plants (Protection of Endangered Species) Ordinance, Cap. 187, which gives effect to CITES," according to Chan Ping-kwong, conservation officer for the Agriculture and Fisheries Department (letter dated 21 July 1990). This domestic law, which was enacted in 1976, does not cover non-CITES species such as the Soviet brown bear, or Appendix III species, such as Canada's American black bear.

Law Enforcement

"According to our records," Chan said (letter dated 21 July 1990), "there have been neither import nor export of endangered species of bear or bear parts in the past three years." Our investigation would put those records in question, however (see "The Bear Market" in this chapter).

Hong Kong is notorious as a entrepot for contraband of all sorts (Posner 1988), including bear parts en route from China to destinations throughout the world (Z. Gao, pers. comm., April 1991). In July 1987, Chinese seamen were caught smuggling giant panda skins into Hong Kong from China (*South China*

Morning Post, 17 July 1987). Chinese authorities found five other giant pandaskins aboard a Hong Kong-bound fishing boat the previous April. In 1986, two giant pandaskins were smuggled into Hong Kong by fishermen. In July 1988, a Taiwanese fisherman entered Hong Kong waters with two bears and two tiger cubs, which were confiscated by authorities and returned to mainland China (*South China Morning Post,* 9 September 1988). The Hong Kong Agriculture and Fisheries Department prosecuted 416 cases of endangered species smuggling in 1987 (*South China Morning Post,* 3 January 1988) and 299 in 1988 (*South China Morning Post,* 28 December 1988). Few of these involved bears or bear parts, but it is safe to assume that these are only the tip of an illicit iceberg. As the *Los Angeles Times* put it, "Hong Kong's archipelago of 235 rocks and islands, with 350 miles of mostly deserted coastline, is a smuggler's haven" (27 November 1989). "Of the cargo that passes through Hong Kong Harbour, only three percent is searched" (D. Melville, pers. comm., May 1991).

Hong Kong newspapers periodically publish reminders to the colony's hundreds of thousands of citizens who travel abroad that they should refrain from bringing home endangered souvenirs. But still they occasionally return home with rare species or their parts tucked in personal luggage. In the case of something as small as a bear gallbladder, individuals could account for a greater volume of trafficking than those who make their living via smuggling.

Hunting

Because no wild bears are known to inhabit Hong Kong, hunting is not a factor for concern or regulation.

Bears as Medicine

The government of Hong Kong officially endorses only Western medicine (Chang and But n.d.). Nonetheless, traditional Chinese medicine "remains popular and pervasive in Hong Kong, partly because 98 percent of the population in Hong Kong are of Chinese origin" (Chang and But, n.d.). Studies show the allegiance to traditional medicine reaches across socioeconomic and demographic strata (Chang and But, n.d.), including adolescents (Lee and Cheung 1989). Some experts predict that the popularity of Chinese medicine will surge once Hong Kong returns to mainland China's possession in 1997 (Chang and But, n.d..).

While the Hong Kong government licenses Western medical doctors as physicians, its does little to interfere with traditional practitioners. Consequently, almost anyone can practice traditional medicine, and there may be two or three times the number of Chinese-style healers in Hong Kong as there are Western doctors (Lee and Cheung 1989). An estimated 8,000 to 10,000 practitioners of Chinese medicine were in Hong Kong in the late 1980s (Chang and But, n.d.). If each of these was to prescribe the contents of one bear gallbladder —50 to 150 grams — each year, Hong Kong alone would consume as many as 10,000 galls annually.

More than $200 million worth of Chinese medicines are imported annually into Hong Kong from China (Chang and But n.d.; *Sunday Straits Times,* 27 May 1990). About half of those are reexported, making Hong Kong both a major consumer of and transshipment point for Chinese medicines (Chang and But, n.d.). Hong Kong also imports raw medicinal materials from the United States, Canada, South Korea, the Soviet Union, Vietnam, Thailand, Indonesia and Taiwan — all potential sources of bear gallbladder, which is known as *hang tan* in Cantonese (P. Chan, letter dated 15 August 1991).

Bears as Food

The 1989 edition of *Hong Kong* by Insight Guides says: "bear's paw, another northern delicacy, is an esoteric banquet food available in Hong Kong. However, it is only available in certain restaurants and should be ordered well in advance because the paws require 16 hours of cooking to make them palatable."

We found the guidebook to be accurate (see "The Bear Market" in this chapter).

Bears as Pets

Keeping bears as pets is prohibited in Hong Kong without a license from the Agriculture and Fisheries Department. At present, there is one outstanding license for this purpose (P. Chan, letter dated 15 August 1991). Pet keeping may be less popular here than in Taiwan or Thailand, in part because urban Hong Kong affords only nine square feet of living space per person (Lueras and Lloyd 1989). None of this is to say, however, that bears are not sometimes kept illegally as pets in Hong Kong. In November 1989, a one year-old sun bear was left in a cage outside Hong Kong's Lai Chi Kok Amusement Park (*South China Morning Post*, 16 November 1989). Agriculture and Fisheries officials believe the bear was smuggled in as a pet then discarded by its owner once it grew large and strong.

HONG KONG: THE BEAR MARKET

We checked for bear gallbladder in 21 traditional medicine shops in Kowloon and on Hong Kong Island (Table 2). Of the 21 queried, 20 sold what they said were bear gallbladders. The one shop that did not sell bear gall was able to refer us to another shop down the street that did.

Prices ranged from $1 per gram to $30 per gram. About half of the stores sold bear gall for more than $10 per gram, while the remaining half sold it for less than that amount. It is likely that only those galls in the higher price range were authentic.

Of the 16 shops that specified the origin of their gallbladders, 14 mentioned China. Two mentioned the Soviet Union, two mentioned India, and Thailand was mentioned once. One shopkeeper claimed his $3-per-gram galls came from Africa, which, of course, has no bears. *South China Morning Post* reporter Brian Power, who followed in our footsteps, reported to us: "We went to more than 20 stores that sell bear galls, and every one of them told us theirs were from some part of Asia." Power added that he saw a gallbladder from "something called a speckled bear." We assume this reference may have been to the spectacled bear of South America.

In all, we saw more than 100 whole gallbladders reportedly from bears, some loose bile crystals, and numerous manufactured medicines claiming to contain bear gall. Even the Chinese Merchandise Emporium, a department store offering goods imported from the People's Republic of China, sold bear bile crystals in its pharmacy section.

One shopkeeper commented that many Japanese, Korean, and Chinese customers buy bear gall from him. Another store owner commented that many Koreans buy at his shop. Brian Power of the *South China Morning Post* told us later that shopkeepers told him: "The new rules in Japan have really cut the exports of bear gall to Japan quite substantially from Hong Kong. Apparently a lot of people from Japan would buy bear galls in Hong Kong, but the number of Japanese customers has dropped quite sharply. This has really hurt Hong Kong business."

One store owner asked us if we wished to sell rather than buy bear gallbladders, indicating that other Westerners had been to Hong Kong selling bear parts.

With the help of staff at the WWF Hong Kong office, we located two Chinese restaurants in Hong Kong that sell bear paw. The Ping Shan Restaurant serves an entree containing two bear paws for $380. The Pearl Court Restaurant could not give an exact price because that is determined by the weight of the paws. Generally speaking, however, the raw paws cost between $146 and $162 per kilo.

Later, in Japan, we watched a prime-

Table 2.

Sampling of Bear Gall Prices in Hong Kong Shops (November 1990).

	Bear Gall			
Shop #/Location	Sold	Price	Stated Origin	Comments
1 / Kowloon	Yes	$5 / gram	Not specified	8 whole galls seen.
2 / Kowloon	Yes	$4 / gram	China	3 whole galls seen. Store gets many Japanese, Korean, and Chinese customers.
3 / Kowloon	Yes	$1 / gram	China, Thailand	9 whole galls seen — 8 from China, 1 from Thailand.
4 / Kowloon	Yes	$29 / gram	USSR, China, "other cold places."	2 whole galls seen. Many Koreans buy here.
5 / Kowloon	Yes	$14 / gram	not specified	9 whole galls seen.
6 / Kowloon	Yes	$3 / gram	Africa	11 whole galls seen. Also crystals.
7 / Kowloon	Yes	<$1 / gram	China	9 whole galls seen.
8 / Kowloon	Yes	$4 / gram	China	22 whole galls seen.
9 / Kowloon	Yes	$19 / gram	China	4 whole galls seen.
10 / Kowloon	Yes	$1 / gram	China, Siberia	12 whole galls seen.
11 / Hong Kong Island	Yes	$17–28 / gram	China	2 galls on hand, 2 in freezer.
12 / Hong Kong Island	Yes	$16 / gram	China	Whole galls seen.
13 / Hong Kong Island	Yes	$13 / gram	China	Chinese department store. Sold bile crystals from farmed bears.
14 / Hong Kong Island	Yes	$30/gram	China	Owner asked us if we were selling bear gall.
15 / Hong Kong Island	Yes	Not given	China	3 whole galls seen. Shopkeeper unwilling to talk.
16 / Hong Kong Island	Yes	$18 / gram	India	2 whole galls seen.
17 / Hong Kong Island	No	N/A	N/A	Referred to another, which had bear gall.
18 / Hong Kong Island	Yes	$1.50 / gram	China	1 whole gall kept in metal box.
19 / Hong Kong Island	Yes	$11 / gram	China	None.
20 / Hong Kong Island	Yes	$18 / gram	India	1 whole gall on hand.
21 / Hong Kong Island	Yes	$18 / gram	Not specified	4 whole galls in tin box.

time television show that featured the preparation of a Chinese "emperor's banquet" available in Hong Kong. The script made much ado of the time, care, and precision needed to transform 100 ingredients, including bear paw, bear meat, and moose nose, into a spread fit for royalty. The price: $157,480.

We visited the Agriculture and Fisheries Department to talk with law enforcement officials, including Chan Ping-kwong. Chan and his supervisor, Senior Conservation Officer Cheung Man-kwong, complained that enforcement of laws against the trade in bear parts is impossible due to problems with positively differentiating bear galls from those of nonprotected species, such as pigs, and the fact that certain bear species are not protected under CITES. A seller of bear galls or paws need only claim they come from a non-CITES bear species to escape prosecution. "We must prove he is holding CITES-listed species before he can be found guilty," Cheung told us.

Hong Kong officials showed little surprise that bear paw was available at local restaurants. Chan recalled approving Health Department applications for the importation of American black bear paws by food traders. Again, the absence of the U.S. American black bear from CITES makes policing the trade in look-alike Asiatic black bear paws impossible.

Cheung stated that if all bear species were protected under CITES, it would make law enforcement much easier for Hong Kong officials. As the situation now stands, the gall trade is impossible to police and, therefore, it is not policed. We told him that shopkeepers had told us their bear galls were from China and other Asian countries and showed him medicines that listed bear gall as an ingredient. Even if a shop swore its wares were from protected bear species, he said, the burden of proof would be on his department and, at this time, he has no means to distinguish bear gall of any kind, let alone that of a specific species. In essence, then, Hong Kong lacks any policing of the trade in bear paws and gallbladders.

MACAU

Macau, a 16-square-kilometer island off the southern coast of China, 27 kilometers from Hong Kong, has no resident bears. Though Macau's population is 99 percent Chinese, its government is administered by Portugal. Portugal ratified CITES in 1981, but did not implement the Convention in Macau until February 1986. By then, however, Macau already was established as a popular destination for Hong Kong residents and visitors who wish to eat rare and protected species.

We visited Macau for one day in December 1990. At the jetfoil terminal, we were greeted by posters announcing that trade in bears, pangolins and other CITES-protected species was illegal in Macau.

With the help of a longtime Chinese resident of Macau, we visited six tradiitional medicine stores but found only one selling bear gall, at $21 per gram. We also stopped at nine restaurants that had various live offerings stacked in cages out front, including hawk owls, pangolins, civets, and monkeys. None claimed to sell bears or bear paws. Given the fact that pangolins and other protected species were openly sold in Macau, however, we were not confident that bears are not still sold here as well.

CHAPTER FIVE

THE BEAR TRADE IN JAPAN

BACKGROUND

Bear Biology

Japan has two resident bear species. The Asiatic black bear is confined to the southern islands of Honshu, Kyushu, and Shikoku. The Japanese brown bear lives only on the northern-most of Japan's main islands, Hokkaido. There are no accurate population estimates for these bear species, though the Asiatic black bear clearly is in severe decline on Kyushu and perhaps extinct on Shikoku (Servheen 1990).

In Japan — as in other Asian countries and as specified in ancient Oriental medicine texts — the gallbladder of the Asiatic black bear is preferred over that of the brown bear (E. Nozaki, letter dated 7 August 1990). Whether this popularity is related to the decline in certain of Japan's black bear populations is not known.

Laws

Japan acceded to CITES in 1980. Its Asiatic black bear is listed on Appendix I of CITES, and its brown bear on Appendix II. However, there are no domestic regulations governing the internal trade in Japanese bear parts, according to Hiroshi Nishimiya of the Environment Agency's Division of Wildlife Protection (letter dated 9 August 1990). *The Red Data Book of Japan* does not list either species of bear. Both are game species under regulations of the Environment Agency (H. Nishimiya, letter dated 9 August 1990). They also are classified as "pests," making it legal to kill them year-round if they are somehow construed to be a threat to property or people. Tom Milliken of TRAFFIC Japan said he knew of hunters who had searched the forest for days to find and kill a so-called "nuisance" or "pest" bear (pers. comm., August 1990).

Hunting

There are limited restrictions on bear hunting in Japan. Selling a bear's gallbladder, meat, and hide is legal. Hunting statistics from the years 1984 through 1988 show that 10,764 black bears and 1,617 brown bears were killed during that period (Table 3). Therefore, an average of 2,153 black bears and 323 brown bears were taken each year over that five-year period. To date, the Japanese have not collected enough baseline data describing bear populations and their habitats to say whether these hunting statistics constitute a sustainable take. In some regions, however, the annual hunting take has dropped dramatically, indicating that hunting may be contributing to a decline in Japan's bears. On Hokkaido, for instance, an average of 500 bears were killed annually in the 1960s, according to bear researcher Tsutomu Mano (pers. comm., August 1990). By the 1970s, the average had dropped to 400. In the 1980s, the average was down 25 percent to around 300 kills per year.

Japanese hunters yield a worthwhile profit from the trade in bears and bear parts, and a well-established trade network links them with Korean buyers, according to black bear specialist Toshihiro Hazumi (pers. comm., August 1990). Though prices vary from prefecture to prefecture, hunters get between $1,575 and $1,969 per black bear gallbladder, Hazumi told us. Satoshi Ohdachi of Hokkaido University claims hunters sell brown bear gallbladders to "Oriental medicine merchants" for from $1,181 to $2,363 each (letter dated 4 July 1990). Hazumi also knows of Korean brokers who, at one time, bought live brown and black bear cubs from hunters.

Table 3.

Number of Asiatic Black Bears and Brown Bears Killed in Japan, 1984–1988.

	Hunting	Pest Control	Total
1984	958	1,082	2,040
	(89)	(222)	(311)
1985	1,020	1,535	2,555
	(97)	(180)	(277)
1986	1,190	1,908	3,098
	(156)	(289)	(445)
1987	1,296	967	2,263
	(156)	(139)	(295)
1988	1,125	1,298	2,423
	(146)	(143)	(289)

top number = Asiatic black bear
bottom number = brown bear

Source: Environment Agency of Japan.

Live bears and gallbladders are not the only money-makers for Japanese bear hunters. Bear meat sells for $63 per kilo in Ishikawa Prefecture (E. Nozaki, letter dated 7 August 1990). In Japan bear hides can sell for anywhere from $400 to $2,500 (Anon., pers. comm., June 1991; E. Nozaki, letter dated 7 August 1990; S. Ohdachi, letter dated 4 July 1990).

Bears as Medicine

In Japanese, bear gallbladder is *kumano-i* or *yutan.* Japan's traditional medicine is called *kanpo,* which literally means Han or Chinese method (Akira 1962), and is a somewhat altered version of Chinese medicine which came into official practice in the eighth century. Bear gall has been a mainstay of *kanpo* since the 17th century (M. Sano, letter dated August 1990), when it was described as one of three principal cures by medical scholar Goto Gonzan (Otsuka 1976). Today bear gall is a registered medicine in the official pharmacopoeia of Japan (E. Nozaki, letter dated 7 August 1990).

The popularity of *kanpo* has had highs and lows in Japanese history, but has enjoyed a revival during recent years (Ohnuki-Tierney 1984). Visits to *kanpo* doctors are even covered by insurance because, by law, *kanpo* physicians must be licensed M.D.s before practicing traditional medicine. In short, traditional medicine is an integral part of the current Japanese health-care system (Lock 1980; Ohnuki-Tierney 1984), and bear gall is an integral part of traditional treatments.

Japanese sources told us bear gall is used in Japan for abdominal pain, fever, liver detoxification, dyspepsia, nausea, poor appetite, skin burns, weakened heart, infant colic, every kind of internal disease and more (T. Aoi, letter dated 7 August 1990; N. Maruyama, letter dated 5 July 1990; E. Nozaki, letter dated 7 August 1990; S. Ohdachi, letter dated 4 July 1990). Some went as far as to use the words "panacea" and "cure-all" to describe bear gall's indications (T. Aoi, letter dated 7 August 1990; T. Hazumi, letter dated August 1990).

Pure bear gall is sold as a medicine by 42 Japanese medical pharmaceutical companies, according to a 1990 publication (*Nihon Iyakuhin Shuu*) edited by the Japan Drugs, Cosmetic and Medical Information Center (E. Nozaki, letter dated 7 August 1990). There also are numerous manufactured medicines containing bear gall, including 95 heart medicines, 16 stomach medicines, one digestive aid, and several famous *kanpo* medicines for children (E. Nozaki, letter dated 7 August 1990).

It is impossible to quantify Japan's total consumption of bear gallbladders because the hunting of domestic Japanese bears is legal and the selling of their parts in-country is both legal and unregulated. However, imported bear gall is used in the production of most manufactured medicines containing bear gall (H. Nishimiya, letter dated 9 August 1990). Between 1981 and 1988, Japan imported 365 kilograms of bear gall from India, which prohibits trade in bear parts (*Japan Times*, 16 April 1988). In 1988, 1989, and the first half of 1990, Japan imported 1,165 kilograms of bear gall worth more than $8.3 million from China, India, Hong Kong, Canada, and Korea, according to records received from the Environment Agency of Japan (Table 4). (It is interesting to note a price increase of more than 28 percent over that three-year period — a jump from $7,165 to $9,213 per kilogram.) In December of 1990, another 134 kilograms of bear gall were imported from China, North Korea, and Canada (TRAFFIC Japan memo to K. Johnson, dated 5 August 1991). In the first six months of 1991, 10 kilograms of bear gall were imported, all from Canada (TRAFFIC Japan memo to K. Johnson, dated 5 August 1991).

In Tokyo, bear gallbladders retail for about $28 gram (E. Nozaki, letter dated August 1990). In Ishikawa Prefecture, galls from local Asiatic black bears sell for between $73 and $84 per gram (E. Nozaki, letter dated August 1990). The difference in price probably stems from the fact that bear parts imported from China are less expensive than those from Japanese bears (E. Nozaki, letter dated 7 August 1990; H. Nishimiya, letter dated 8 August 1990).

Table 4.

Quantity of Bear Gallbladders Imported into Japan, 1988–February 1990.

	kg		1,000 yen**
1988			
China	246		226,482
Hong Kong	68		74,361
India	20		2,552
Canada	0	(*)	840
Total	334		304,235
1989			
China	687		570,772
Hong Kong	12		25,656
Canada	4		4,509
Total	703		600,937
1990 — January			
China	118		147,976
Korea	10		1,662
Canada	0	(*)	968
Total	128		150,606
1990 — February			
Canada	0	(*)	968
Total	0	(*)	968

(*) = under 1 kg

** 133 yen/US $1 in September 1991

Source: Environment Agency of Japan (letter dated 9 August 1990).

Bears as Food

Bear paw is strictly a Chinese delicacy available only at the most expensive Chinese restaurants in Japan and not a food particularly popular among Japanese (H. Nishimiya, letter dated 9 August 1990; and others). (See "The Bear Market" below.)

Bear meat, on the other hand, has gained popularity as a novelty dish and souvenir item. Japan imported 1,000 kilograms of bear meat in 1988 and 18,000 kilograms in 1989 (Ministry of Health and Welfare statistics, quoted in *Yominri Shinbun*, 25 August 1991). On the island of Hokkaido, which is famous for its brown bears, canned bear meat is sold in souvenir shops at Chitoise Airport. A souvenir pack containing a 105-gram tin of bear meat along with a matching tin of deer meat costs $14.

Bears as Pets

Pet keeping is strictly controlled by government regulations (S. Ohdachi, letter dated 4 July 1990), making it expensive and cumbersome but not impossible for individuals to keep bears in captivity in Japan. However, more than 1,000 bears do live in captivity in Japan in bear parks. These parks are unique to Japan and deserve a closer look because of their involvement, most often behind the scenes, in the bear trade. (See "Bear Parks" in this chapter.)

THE BEAR MARKET

We found bear galls sold openly at pharmacies selling both Western and traditional medicines. One such dual-purpose drugstore had six whole gallbladders displayed. A 54-gram gallbladder at this establishment cost $30 per gram.

Bear paws were available in the freezer section of a Chinese grocery in Yokohama's Chinatown, the largest enclave of Chinese living in Japan. One 850-gram paw was priced at $254. We asked to order a bear paw entree at several of Yokohama's best Chinese restaurants. One restaurateur said he would need three to 10 days to obtain a paw and that the resulting dish would cost us $236. The owner of Tung Fat Restaurant told us he no longer sold bear's paw because the price had skyrocketed from $24 to $157 each. He blamed the sharp increase on a recent prohibition of the import of bear paws from China. A restaurant in Kumamoto Prefecture advertised bear steak for $15 per serving.

We spent very little time shopping for bear parts and did no systematic tally in Japan because the sale of domestic bears and their parts is both legal and unregulated. Therefore, it was unnecessary to establish proof of a domestic black market or to assess the effectiveness of in-country law enforcement efforts. We did, nontheless, find evidence of a secret international bear-parts trade at Japanese bear parks.

Bear Parks

All of the information that follows was gathered through personal observation, interviews with park personnel or from public records. Names of individual sources are not used in order to protect those people who requested anonymity.

There are eight bear "parks" in Japan – five on Hokkaido, two on Honshu, and one on Kyushu. A ninth is under construction on Shikoku, while a tenth is proposed in Nikko National Park near Tokyo. Some of these parks have only brown bears, some nearly all Asiatic black bears, and at least one has seven of the world's eight bear species, excluding only the giant panda. Together, they house more than 1,000 bears. Some receive thousands of visitors daily. At least two have floor shows, featuring bears who ride bicycles, jump through flaming hoops, roller skate, dance, and the like. Visitors are allowed to feed the bears, which elicits both brawling and begging antics that amuse the spectators. Five of these facilities admitted to selling bear gallbladders, though not all sell galls from resident park bears.

We visited three Japanese bear parks, including *Ani Kuma-Bokujyo (Bear Park)* on the Main island of Honshu, *Noboribetsu Kuma-Bokujyo* on Hokkaido and *Aso Kuma-Bokujyo* on Kyushu. Ani and Noboribetsu were started with bear cubs orphaned locally by spring hunting of mother bears in the den -- a practice that has recently been prohibited on Hokkaido. Initially, all of the bears in these parks came from the wild, either directly from hunters or through wild animal brokers in Japan. (One park pays hunters more than $2,000 per cub.) Now that the parks' resident bears are breeding, the number of wild bears entering each captive population varies. About 22 percent of Noboribetsu's bears come from the wild. Ani, which is owned and operated by the local government and is just getting started, receives all of the cubs obtained from the hunt in Akita Prefecture.

Aso had 421 bears at this writing. Noboribetsu had 269 bears in residence at the time of our first visit. Ani had only 58 bears, but park officials said they plan to expand the resident population to 200 because the current number does not provide enough action to hold the interest of tourists.

All of the parks visited keep their bears in cement grottos. At Aso, for example, approximately 40 subadult Asiatic black bears share one grotto, which is smaller than a tennis court. At the time of our first visit to Noboribetsu, more than 100 adult brown bears occupied the park's main grotto. Each adult bear there weighs between 140 and 300 kilos, and the average density at that time was one bear per 13 square meters. During mating season, the males fight viciously over females. Many fight to the death at both Aso and Noboribetsu.

Some of these parks allow their bears to sleep outside at night. However, Noboribetsu moves its bears into low, narrow cement sleeping chambers, enticing them indoors with the restaurant refuse that makes up their main meal each day. Each bear has approximately 1.3 square meters in the sleeping chamber. The dominant animals fight for the tastiest scraps. Occasionally, as a bear tries to wolf down its share of food, it will swallow a wooden skewer used to grill chicken in Japan. Bears have died of resultant punctures of internal organs, according to park journals. Once the food is consumed, the bears go to sleep in piles two and three bears deep. Park journals show that some bears have suffocated as a result of this sleeping arrangement.

Behind the scenes at Aso, aggressive bears are housed in narrow underground chambers. Some are castrated and then denied full food rations until they lose the energy to fight.

Generally, Ani and Aso parks give their bears a more balanced diet and maintain more humane conditions than Noboribetsu, but mortality rates at the more densely populated parks are high regardless of basic conditions. Some bears die of pneumonia. Some die under anesthesia administered by staff lacking adequate veterinary training. Many die of wounds from fighting. Others have dropped dead of unknown causes. Aso has experienced an epidemic of bears dying from internal hemorrhaging. During our second visit to Noboribetsu, one bear dropped dead and another became paralyzed in the back legs and later had to be euthanized.

At one of these parks, the gallbladders of dead bears are always sold except in cases when bears die of highly suspicious causes. Each gallbladder is sold for as much as $4,000. Another park sells galls, mainly to South Korean buyers, for between $1,500 and $3,000 each. Ani park sells galls from wild Asiatic black bears killed by local hunters for about $1,000 or $26 per gram. (In the latter case, Ani Town holds an auction of parts from bears taken in the spring pest-control hunt as well as the regular fall hunt. The gallbladder, meat, and fur generally make a bear worth more than $2,000 to hunters, according to the president of a local hunting association. When a gall is golden colored, however, it alone nets $1,500.)

One park also sells the meat of its bears, which is canned in tiny tins and sold in souvenir shops. The meat of one bear earns the park about $3,000. The hide, with head and paws attached, sometimes sold at the park's gift shop, can fetch up to $3,000 as a rug. At these rates, the sum of a dead bear's parts can earn up to $10,000 once the animal has outlived its usefulness as a tourist spectacle.

At least one Japanese bear park allows Korean and Japanese customers to pick out bears for their gallbladders. Once a bear is chosen, it is isolated from the others in a small cage and denied food for several days to more than a month. The gallbladder is said to enlarge during this period of fasting. Some bears have died of starvation before keepers have had a chance to kill them. At one time, bears chosen for their gallbladders were shot, but it often took them hours to die. They now are stunned with an air-driven hammer after which their throats are cut. Once a bear is dead, its gallbladder is removed, air dried, then shipped to its buyer.

In early 1991, more than 100 bears from one Japanese bear park were selected for slaughter. After the bears were rendered at a wildlife-meat packing plant, all of their gallbladders reportedly were sold to a South Korean broker. To date, more than 1,000 bears have died or been slaughtered at this park. The park's owner reportedly also imports gallbladders from the Soviet Union to resell through the park. At one time this park sold live bears to South Korea. However, that practice was stopped after the shipment of 30 to 40 bears, when the park learned it might be in violation of CITES regulations.

The owners of Aso park are currently building Japan's ninth bear park on Shikoku, which is expected to open in July 1992. Aso officials admitted they were perfecting ways to dry gallbladders collected from dead bears on the premises, but claimed they had not sold any. Aso's chief veterinarian had just returned from China, where he had tried unsuccessfully to observe techniques for milking bile from the gallbladders of live bears.

Japan's tenth bear park, proposed for the Nikko area outside Tokyo, would be built by Katsuo Kamori, the owner of Noboribetsu. It is interesting to note that Kamori, who considers himself a conservationist, also owns Heavenly Valley and Steamboat ski resorts in the United States and Lone Pine Koala Sanctuary in Australia.

The implications for bear conservation inherent in Japan's bear parks are twofold. First, these parks add to and stimulate the commercial market for bears that makes them worth more dead – or at least taken from the wild – than alive. Second, such parks could serve as outlets for laundering gallbladders from other countries, as evidenced by the import of Soviet bear galls and their subsequent sale through one Japanese park.

Another problem implicit in these bear parks is that they do not promote the value of wild bears to the Japanese public. At least one offers a fine bear museum, but only a small percentage of visitors leave the observation areas around the cement bear grottos filled with begging and fighting bears. The majority of park visitors see bears only as comic characters riding bicycles, playing basketball, or performing unnatural antics for a food reward from their audience.

CHAPTER SIX

THE BEAR TRADE IN KOREA (SOUTH)

BACKGROUND

Bear Biology

Only the Asiatic black bear, known in Korea as "Pandalgom" or "half-moon bear," is native to South Korea. Approximately 10 to 20 bears remain in South Korea's forests, divided between two mountain areas at opposite ends of the country (Forestry Administration Officials, Republic of Korea, pers. comm., December 1990) and perhaps in the demilitarized zone along the border with North Korea (Lueras and Chung 1989). Some sources say Korea's bears were eaten to the brink of extinction (Lueras and Chung 1989). Others suggest that the Japanese, during their occupation of Korea from 1904 to 1945, exported home most of the contents of Korea's forests (H. Choe, pers. comm., May 1991). Still others raise the possibility that strategic deforestation during the Korean War may have been partly to blame (N. Han, pers. comm., May 1991). More than likely, Korean demand for bear gallbladders and meat, combined with widespread deforestation during the Japanese occupation and the Korean War, drove South Korea's bears into irreversible decline.

Laws

South Korea is not a party to CITES. However, import and export of living bears was prohibited beginning in 1985 (J. Lee, pers. comm., December 1990). There is currently a ban on the import of whole dead bears as well (Korea Customs Research Institute, letter dated 15 November 1990). Imports of bear gall are subject to the approval of city mayors or provincial governors, according to the Korea Customs Research Institute. Responsibility has been delegated to provincial governors by Authority of the Wildlife Protection and Hunting Law (Nichols et al. 1991). An official at the Forestry Administration Protection Division told us that bear gall can be imported for medical purposes only, by permission of the Ministry of Health and Social Affairs (J. Lee, pers. comm., December 1990). Imports of prepared medicines containing bear gall are allowed, though individuals are restricted to bringing in no more than $400 of such prepared medicine per person (J. Lee, pers. comm., December 1990; S. Song, pers. comm., December 1990).

South Korea's last wild bears were declared Natural Monument 329 in 1982, which gave them official protection from hunting taking, possession, and trade (Law for the Protection of Cultural Properties, No. 3644, 31 December 1982). Operating a bear farm in South Korea requires a license. Selling whole live bears for their galls is allowed under certain circumstances (see "Hunting" and "The Bear Market" in this chapter).

The new Animal Protection Act passed in May 1991 apparently does not cover bears (*The Korea Times*, 18 July 1991).

Law Enforcement

The law protecting South Korea's last wild bears is enforced and, whether for reasons of scarcity, legality, or practicality, certain aspects of the bear trade have disappeared. "Into the late 1960s it was quite possible, during a stroll along the back alleyways of Seoul, to see a man standing behind the carcass of a bear — fur and all — convincing a rapt audience of men that they would live longer lives if they consumed bear flesh," expatriate Gertrude Ferrar wrote in an early edition of Insight Guides *Korea* (date unknown).

Hunting

Though designation as a "natural monument" protects South Korea's bears from sport hunting, poaching still occurs on occasion. In May 1983, the year after the species became protected under national law, a 10-year-old female bear was found on Mt. Sorak near death from a gunshot wound (*Korea Herald*, 5 June 1983). A Korean man was later arrested for illegal hunting under cultural property protection and firearms control laws (*Korea Herald*, 7 June 1983) and sentenced to two years in prison (*Korea Herald*, 21 August 1983). After the bear died, the Cultural Properties Maintenance Bureau sold its gallbladder at public auction for nearly $64,000 (at the 1991 exchange rate) to the operator of an herbal medicine clinic (*Korea Herald*, 11 June 1983). In another round of public bidding, 51 kilos of the bear's meat were sold for more than $2,000 (*Korea Herald*, 11 June 1983). Two people offered to buy the bear's hide for more than $1 million (*Korea Herald*, 25 May 1983), but the Ministry of Culture opted to mount the hide and display it at a zoo. These prices illustrate some Koreans' pronounced preference for their native bears and how price escalates with scarcity.

Bears as Medicine

In Korean, bear gallbladder is called *ungdam*. From what we have seen, Koreans are perhaps the most dedicated of all Asians to the use of bear gallbladder as medicine — more so than the Chinese, who originated the practice. Some Koreans are willing to pay more for bear gall and go to greater lengths to get it than people of any other nationality. When possible, many prefer to see the gallbladder taken from the bear's body to ensure authenticity, and they are known to have had bears killed before them or on videotape for this purpose (Mills 1991; U.S. Fish & Wildlife Service agents, pers. comm., 1990–1991).

This dedication to the use of bear gall probably is due to a number of factors. Chinese medicine began to influence Korean medicine as early as 57 b.c. (Pang 1984). *Hanyak*, the Korean term for traditional medicines such as bear gallbladder, literally means medicine (*yak*) from China's Han Dynasty, which dated from 204 b.c. to 260 a.d. (Pang 1984). Korea's isolationist policies, which won it the name "The Hermit Kingdom," kept Western medicine out of the country until 1884 (Pang 1984). By the 1950s, the majority of Koreans probably still received their health care from practitioners of *hanbang*, the traditional Korean medicine that took root from Chinese medicine (Pang 1984). In the throes of industrialization and modernization in the 1990s, Koreans remain devoted to ancient traditions such as ancestor worship, filial piety, tonic foods, and herbal medicine (N. Han, pers. comm., May 1991). The latter is illustrated by the thousands of *hanbang* clinics and the countless herb dealers dispensing *hanyak* medicines in South Korea. Superimposed on this national loyalty to tradition is an increased interest in health tonics fueled by newfound affluence (*Chung-Ang Il Bo* [newspaper], 16 July 1991) and a widely held belief in bear gall as a powerful cure for almost anything (*Korea Herald*, 17 July 1991). The head of a traditional medicine clinic was quoted as saying bear gall purges all toxins from the human body, helps serious liver ailment, and is a highly effective treatment for diabetes, high blood pressure, palsy, fever, and hemorrhoids (*Taegu Daily Mail*, 12 April 1991).

When asked about bear gall, a Korean-American friend's mother, who lives in Seoul, said matter-of-factly that "bear galls are imported from China and the U.S." (K. Kwak, pers. comm., July 1990). In fact, Koreans are rather infamous in China, Thailand, and the U.S. for their penchant for bears and bear gall. Koreans have been arrested in all three countries in connection with the illicit sale of bears and/or their parts. Koreans continue to be caught leaving China with bear galls hidden under their clothing (see China chapter). In July 1991, Thai law enforcement officials raided a farm outside Bangkok that catered to Korean tourists. Along with the establishment's Korean manager and a number of Korean tourists dining on bear meat, they found several living bears, several freshly killed bears, and records of sales of bear gallbladders and bear banquets (see Thailand chapter). In the U.S., one of the latest in a series of law enforcement cases involving Koreans buying bear galls occurred in April 1991, when 173 bear gallbladders addressed to two Koreans living in Alaska were seized at Anchorage International Airport (*Anchorage Daily News*, 24 April 1991). The galls were believed to be bound for Asia. Chinese medicine merchants in Hong Kong and Malaysia describe Koreans as among their best customers. Between December 1990 and February 1991, more than 100 bears were killed at a Japanese bear farm. All of their gallbladders reportedly were shipped to Korea (Anon., pers. comm., June 1991).

Between 1985 and 1989, South Korea officially imported 25 kilograms of bear gall (TRAFFIC Japan memo to K. Johnson, dated 5 August 1991). In 1990, official statistics show another 7.8 kilos were imported (Science and Technology Office, U.S. Embassy, Seoul). Between 1980 and 1983 alone, South Korea imported 330 live bears (Milliken 1985). The next year, 1984, CITES signatories reported exporting another 52 live bears to South Korea (CITES Annual Report data). Because South Korea is not a CITES party and therefore under no obligation to report its trade in bears and bear parts, these data represent an incomplete and conservative picture of total South Korean bear imports.

Bears as Food

While bear paw dishes are considered Chinese food, they are nonetheless served in South Korea at Chinese restaurants (see "The Bear Market" in this chapter). Like the Chinese, Koreans regard bear meat as a "tonic" food for strengthening the human body. This belief is best illustrated by the 30 bears smuggled out of Thailand to South Korea to fortify Korean athletes for the 1988 Olympic Games (see Thailand chapter).

Bears as Pets

To our knowledge, bears are not popular pets in South Korea.

THE BEAR MARKET

We visited South Korea three times in the course of this project. The *hanyak* shops we visited were located in Seoul and Taegu, South Korea's second-largest city. Most kept what they identified as bear gallbladders in safes due to their high monetary value.

Prices ranged from $1 to $210 per gram (Table 5). We suspect those for $1 per gram were not from bears. In fact, one shop sold pig gallbladders for $50 each (less than $1 per gram) and wild boar galls for $300 each (less than $3 per gram). Those galls priced at $22 to $210 per gram were more likely to be authentic.

The owner of one shop in Seoul was a Western medicine doctor, who told us bear gall works well for chronic hepatitis. To ensure authenticity, he himself travels to Tibet, Vietnam and China to buy his stock of bear gallbladders. His galls ranged in price from $34 to $43 per gram.

In Taegu, we priced bear gall at between $42 and $139 per gram. Bear bile was even sold in the pharmacy at Seoul's Kimpo Airport, for $5 per gram.

"Braised bear's paw with vegetables" is printed on the menu at the Seoul Hilton's Phoenix Chinese Restaurant. The dish must be ordered 24 hours in advance and costs between $492 and $562 per dish, according to market prices in August 1990. At the Great Shang Hai Restaurant in Seoul's Koreana Hotel, braised bear paw must be ordered three days in advance and costs about $700.

A couple of medicine wholesalers agreed to talk with us only because they assumed we had come to Seoul with a suitcase full of gallbladders from North America. They were not forthcoming once they learned we were not selling galls, but they did tell us bear gallbladders could be bought in the U.S. for between $200 and $300 (E. Lyhim, pers. comm., December 1990). A whole bear costs $1,000 in the U.S. (K. Cho, pers. comm., December 1990). They said finding genuine bear gall has become very difficult. "When I am sick, I go to the U.S. for bear and watch it killed myself," we were told by E. H. Lyhim, president of Seoryung Trading Co., Ltd. (pers. comm., December 1990). A real bear gallbladder is worth as much as $15,000 in South Korea, he said.

In Taegu, we visited the Talsong Park Zoo, where two brown bears occupied the bear grotto during our first visit in December 1990. A zoo official told us that once the bears become too old to entertain visitors, they are sold at public auction for their gallbladders. At that time, the going rate was about $7,100 per bear. When we visited again six months later, in May 1991, there were two young bears in the grotto in place of the two adults. We talked with Kim Sung Kil, the staff veterinarian. He said that on December 26, a couple weeks after our first visit, a keeper had been killed by the adult male bear. Police shot the offending bear, which was sold at public auction. The winning bidder, a man whose son was suffering from liver disease, paid $9,722. The following February (1991), the adult female was sold at auction, also for $9,722. The bears currently in the grotto were the offspring of the auctioned bears and were then 16 months old. When they are about three years old, Kim said, they too will be sold at auction for their gallbladders. "*Ungdam* is very good medicine," he said.

The China Connection

During our second visit, we encountered approximately 600 Chinese-Koreans peddling Chinese medicine on sidewalks and in subway tunnels in the heart of Seoul. They were part of more than 14,000 ethnic-Korean residents of China who visited their South Korean homeland in the first nine months of 1990 (*Korea Herald*, 10 November 1990). Most were not traditional medicine dealers. Some bought medicines in China to resell in Seoul in order to pay for their travel, while others did so in hope of earning large profits. Medicines such as bear gall can sell in the streets of Seoul for 10 times their price in China (*Korea Herald*, 27 February 1990). Word of mouth and relaxed travel restrictions between China and South Korea have brought a flood of such medicine sellers in recent years. Where 677 Chinese-Koreans visited in 1986, 773 came in 1987, 1,996 in 1988, and 6,824 in 1989 (*Korea Herald*, 9 November 1990).

Among the ethnic Koreans' offerings, we counted 136 bear gallbladders, several Asiatic black bear paws, vials of bear bile crystals, and numerous medicines containing bear gall. One vendor offered to trade a bear gall for our Nikon camera. One of the bear paws we saw was priced at $429. Several of the bear gallbladders we inquired about came with certificates of authenticity that vendors claimed were issued by the Chinese government. We were offered two bear gallbladders for $2,861 by one vendor. Another wanted $700 for a single gall and $60 for a one- to two-gram vial of bear bile crystals. Yet another vendor showed us a very large bear gall for which he wanted $3,292. A few vendors away, a smaller bear gall accompanied by a government certificate was priced at $572. A number of vendors were selling bear bile salts supposedly milked from live bears.

Vendors said bear gall was good for smoking too much, and drinking too much, for cancer, for strengthening the liver, for treating hepatitis, for sore throats, for "everything" that ails a person.

One vendor said he lived 400 miles north of the Chinese-Korean border, probably in Jilin Province, home to more than 2 million ethnic Koreans (*Wall Street Journal*, 11 December 1990). A woman from Jilin Province hawking a bear gall for $700 said she was a primary school teacher who had come to visit her family in Pusan and had hoped to make some extra money before returning home. Another woman vendor, a restaurant owner from Jilin Province, had three bear galls and said she had sold seven others already. A man with two bear galls left to sell was an automotive worker who said he had bought his supply of galls and medicine from a Chinese pharmaceutical company. A shopkeeper from Harbin told us he was selling bear gall and what appeared to be a desert-cat coat to raise funds for his son, who wants to attend school in South Korea. He was asking more than $14,000 for the gallbladder he brought from China. To prove its authenticity, he handed us snapshots of a brown bear he said was shot along the Sino-Soviet border and the bear's dried nose. The photos showed him with a Caucasian man standing next to a sign in Russian at what looked like a border check station.

South Korean customs officials were worried about these vendors, not because they were bringing in bear parts but because they were bringing in more than the allotted $400 limit per person for importation of Chinese medicines (*Korea Herald*, 3 November 1990).

Bear Farming

In December 1990, officials of the Forestry Administration and Forest Research Institute's Protection Division said their most recent census in 1989 showed there were 14 farms in South Korea containing a total of 655 bears. All of the original stock for these farms was imported from the U.S. or China, and all farms were said to be for educational rather than medicinal purposes (Y. Lee, pers. comm., December 1990). Forestry officials want both to protect bears and provide medicine for people, therefore, extracting bile from living bears is of great interest (J. Lee, pers. comm., December 1990). In 1989, two representatives from the Korea Society for the Protection of Wild Animals, whose offices are located in the same compound as those of forest officials, went to China to learn about the extraction process. Unfortunately, they said, the Chinese were not willing to share the secrets of their techniques.

We had asked Forestry Administration officials to take us to a bear farm south of Seoul because members of a Christian Science Monitor Television crew told us they had visited a

Table 5.

Sampling of Bear Gall Prices in South Korean Shops (December 1990 and May 1991).

	Bear Gall			
Shop #/ Location	Sold	Price	Stated Origin	Comments
1 / Seoul	Yes	$22–33 / gram	China	2 galls, kept in safe.
2 / Seoul	Yes	$34–43 / gram	Tibet, China, Vietnam	Shop owner is a medical doctor who buys his own galls abroad. Employee asked if we were buying or selling gall.
3 / Seoul	No	N/A	N/A	Stuffed Asiatic black bear in store.
4 / Seoul	Yes	$185–210/ gram	Not specified	Price higher if sold by gram rather than whole.
5 / Seoul	No	N/A	N/A	9 galls in safe — 7 from pig @ $50 each; 2 from wild boar @ $300 each.
6 / Seoul	Yes	$1 / gram	Not specified	Several galls in safe, which owner claimed were from bears.
7 / Seoul / Kimpo Airport	Yes	$5 / gram	China	Pharmacy in international airport sold bile crystals only.
8 / Taegu	Yes	$42 / gram	Not specified	None.
9 / Taegu	Yes	$42 / gram	"Asia," "America"	Owners buys gall from broker.

bear breeder there who was experimenting with removing bile from living bears and another who sold bears to wealthy buyers who wanted a guaranteed authentic supply of medicine (W. Hanamura, letter dated 24 October 1990; World Monitor, 11 September 1990). We were taken to a facility in Suwon, which had 63 Asiatic black bears, along with elk, deer, Chinese dogs, and wild boar. Seven of the bears were playing in a grotto, while the others were in small, zoo-style cages. These bears were kept for the pleasure of their rich owner and not for medicinal purposes, we were told by the compound's caretaker. By coincidence, we again were taken to this bear farm in May 1991 by a Korean acquaintance who knew of our interest in bears. There were then 70 bears. This time the caretaker admitted the farm sold bears from time to time. When asked why, our escort said, "for *ungdam* only." The caretaker said the farm's owner wanted to breed the bears, originally from Japan, so that he could stock a number of bear farms throughout South Korea.

In May 1991, near Sangju, a couple hours by car from Taegu, we visited *Kaya Bear Farm*. There were approximately six brown bears and 12 Asiatic black bears in small, open-air zoo-style cages. Because we arrived unannounced, we expected to be asked to leave. However, when owner To Won-Ho drove in

Table 5 (continued).

Shop #/Location	Bear Gall Sold	Price	Stated Origin	Comments
10 / Taegu	Yes	$111–139/ gram	China, Siberia	Buys from broker.
11 / Taegu	Yes	$28 / gram	China	Complained that many counterfeit bear galls are sold.
12 / Taegu	Yes	$28–42 / gram	China	Shopkeeper sometimes buys in China himself.
13 / Taegu	Yes	$56–70 / gram	China, Mongolia	None.
14 / Taegu	Yes	$70–84 / gram	China	Owner says taking gall from whole bear is best proof of authenticity.
15 / Taegu	Yes	$42–56 / gram	China	None.
16 / Taegu	Yes	$70–139 /gram	China	Most effective mixed with herbs, according to owner.
17 / Taegu	Yes	$28–42 / gram	China	Shopkeeper says bear gall has always been expensive.
18 / Taegu	Yes	$14 / gram	China	Best taken as loose crystals.
19 / Taegu	Yes	$42–56 / gram	Korea, "America"	Whole galls are best medicine.
20 / Taegu	Yes	$56–70 / gram	China	Buys from ethnic Koreans in China.

with some obviously wealthy customers, he invited us into a nearby shed to watch their transaction. Inside was one long room that housed five caged bears — two Asiatic black bears and three brown bears. One of the brown bears appeared to weigh as much as 600 kilos. Each occupied a cage approximately four feet by five feet, with a narrow extension off to one side that served as a squeeze cage. Each of the bears, except the larger of the black bears, was wearing a tight-fitting harness that held in place a metal plate across the abdominal area

To Won-Ho went to the harnessed black bear. Using a metal pole, he prodded the bear into the narrow portion of its cage. As his wife distracted the bear with a pan of sweets, the door of the squeeze cage was lowered and metal rods inserted to confine the bear and to keep its legs from interfering with its abdominal area. The owner reached in, unlocked the metal panel, and a plastic bag attached to a catheter dropped down. The bag was half full of a green-brown liquid. The bear scraped and clawed wildly at the cage while the owner then extracted the liquid from the bag with an oversized hypodermic needle, withdrawing two full syringes. The process took approximately five minutes, after which the bear's tap was again locked away under the metal abdominal plate. The syringes were emptied into three plastic bottles, which were immediately packed in ice. A small amount was left, so To squirted the contents into his clients' mouths. The buyers paid about $1,700 per bottle, each of which probably held no more than 10 or 20 milliliters. To's wife told us that each of the bears could be milked once or twice per month. An article in one of Taegu's daily newspapers about Kaya Bear Farm said that, in November 1990, To became the first in the nation to succeed at extracting bile from a live bear (*Taegu Daily Mail*, 13 February 1991 and 12 April 1991). He claimed his bears came from the U.S., Japan, and the Himalayas and that the five animals set up for milking yielded 10 to 20 milliliters of bile each month in two extraction sessions. He said he had been experimenting on dogs and pigs since 1987 to perfect the extraction process. Apparently a Pusan man with cancer of the liver had claimed great improvement after drinking bile from living bears and demand for the product had soared since.

In July 1991, Munhwa Broadcasting Corp. aired a story on its Sunday evening news about bear farms outside Seoul. MBC showed not only the extraction process but the surgical implantation of a fistula into the gallbladder of a bear. The spectacle was termed an "illegal practice" that "shocked the public with its brutality" in *Korea Herald* (17 July 1991). Officials of Kyonggi Province, which surrounds Seoul, said there currently are 36 bear farms holding a total of 257 bears in their jurisdiction alone, though not all extract bile from live bears. What Koreans call "tonic maniacs" routinely pay almost $700 for 10 milliliters of liquid bear bile (*Korea Times*, 18 July 1991). Two owners of the farm featured in the MBC newscast were arrested on charges of operating without a license, as no other laws were pertinent to the situation (*Korea Times*, 18 July 1991). Following the television expose and the resulting uproar, South Korea's President Roh Tae Woo and other government officials reportedly pledged to strengthen the new animal protection law to stop bear farms from continuing to extract bile from living bears (J. Robinson, 9 August 1991; *China Post*, Taiwan, 18 July 1991).

CHAPTER SEVEN

THE BEAR TRADE IN LAOS

BACKGROUND

Bear Biology

Both the Asiatic black bear and sun bear live in the largely uncut tropical forests of Laos. Virtually nothing is known about these bears, though government conservation officials claim bears inhabit most of the 17 Lao provinces (Venevongphet, pers. comm., March 1991). Given the rugged terrain, sparse human population, and the extent of forest cover that remains intact – as much as 58 percent (R. Salter, letter dated 8 August 1988; Salter and Phanthavong 1989), Laos may be one of the last strongholds for the sun bear and Asiatic black bear.

Thailand and Japan are interested in Laos's timber resources. Logging not only will destroy vast areas of Southeast Asia's best and last uncut tropical bear habitat, but also will certainly expose bears to greater poaching pressure as roads increase access and settlement. There are at present no protected forests in Laos. While some are proposed, they are not expected to be named until 1994 (Venevongphet, pers. comm., March 1991).

Laws

Laos, also known as the Lao People's Democratic Republic, is not a CITES party, though government officials say they are "ready to join" (Venevongphet, pers. comm., March 1991). Its list of endangered species does not include bears.

Bears now are "protected," as is all Laos wildlife (Venevongphet, pers. comm., March 1991). By decree of the central government, trade in wildlife, whether alive, dead, or in parts, was prohibited in 1986 (Decree of the Council of Ministers No. 185/CCM in Relation to the Prohibition of Wildlife Trade, 21 October 1986).

Law Enforcement

The former director of the Forest Resources Conservation Project served prison time for trafficking in Laos wildlife and laundered

Thai wildlife (Venegongphet, pers. comm., March 1991; *The Nation*, October 1987). He was caught in connection with three Thais who were arrested in 1987 for falsifying government documents in order to smuggle wildlife out of Laos. At that time, more than 100 animals were confiscated, including 10 bears, at camps no more than eight kilometers from the government's wildlife conservation offices in Vientiane (Venevongphet, pers. comm., March 1991). This operation was also run in cooperation with certain Laotian army officials.

One Laos conservation official acknowledges that bears and bear parts continue to be traded across the Laos-Thai border, which is long and difficult to police (Venevongphet, pers. comm., August 1990). Enforcement of the government ban on wildlife trade varies widely among provinces. Provinces bordering Thailand tend to be rather lax, as turning a blind eye to wildlife trafficking is quite lucrative (Venevongphet, pers. comm., March 1991).

The fact that an estimated 100,000 to 150,000 Laos water buffalo are smuggled to Thailand annually (Ngaosyvathn 1990) illustrates the porosity of the border.

Hunting

Hunting bears is illegal in Laos, though there is little policing of this prohibition, and some subsistence hunting is allowed (Venevongphet, pers. comm., March 1991). However, there is said to be little hunting of any species, even for subsistence, during the Buddhist "meditation period" observed from the end of July to mid- October. "This season is breeding season," we were told. This rule is not decreed by law or by science, but by "belief of the people" (Venevongphet, pers. comm., March 1991).

Bears as Medicine

A Laos acquaintance living in Thailand confirmed that the Laotian people do use bear gallbladder as medicine. In fact, she had one in her house that had been smuggled out of Laos as a gift by members of her family. She learned of the bear's medicinal value from her parents. In addition to using the gallbladder as medicine, the Laotian people use bear fat to treat rheumatism and eat bear meat for "energy." Medicinal use of bears parts is illegal, but enforcement in this regard is mostly nonexistent (Venevongphet, pers. comm., March 1991).

Bears as Food

As mentioned above, the Laotian people do eat bear meat. But because they enjoy only a $180 annual per capita share of the GNP (*Asiaweek*, 26 April 1991), it is more likely that bears and their parts would be exported to Thailand to supply the more lucrative market for bear there.

Bears as Pets

Bears are kept as pets in Laos (see "The Bear Market" in this chapter).

THE BEAR MARKET

While in Thailand in 1989, we were told by wildlife sellers and people who service the Korean tourist trade that, because of depleted supplies at home, most of their stock of live sun bears and Asiatic black bears came from Laos. However, little of this trade can be seen openly in Vientiane.

Our guide for part of our stay in Vientiane and its surrounding vicinity told us that Laotian people use bear bile to treat broken bones. He said it was possible to buy bear bile in Vientiane. "For a small amount" of bile, he said, the price is $20 to $40. We found only one Chinese medicine store in Vientiane and its owner claimed he did not sell bear gallbladder.

About 30 kilometers outside Vientiane, we stopped to inquire about buying ***mee-dum*** (an Asiatic black bear) at a village market. A few minutes later, a young woman appeared with a two-month-old black bear cub on a short wire leash. She said her father had taken the cub while its mother bear slept in the forest. She wanted $180 for the bear. She would sell it easily to a Laos hotelier or the Thais who come asking for bears, our guide said. We asked what would happen when the bear grows big and were told it would be killed for its gallbladder. The woman said this was the first bear she had sold. At the same market, an herbal medicine seller claimed she had already sold her supply of bear bile.

We found no bears or bear parts at other markets in and around Vientiane.

At the Lan Xang Hotel, Vientiane's finest, an adult Asiatic black bear and a two-month-old sun bear cub lived in the pool-side zoo. A villager from the north of Laos had brought in the sun bear cub a month before and sold it to the hotel for $100. The adult black bear, which was nearly hairless from mange, had appeared eight months prior, according to a New Zealand expatriate, Julie Jeppesen, who came to water the bears everyday as the hotel staff refused to. The hotel staff didn't seem to care if the bear died. "As soon as a cage is empty," Jeppesen said, "someone brings in another animal to fill it." She said she had seen six or eight people trying to sell sun bear cubs around Vientiane within the previous three weeks. Wildlife sellers often seek her out as she is known as an animal lover. At first the asking price was $100 per cub, she said. But once the market had become flooded, the price dropped to $10.

The Thailand Connection

Prior to 1986, the Laos government allowed Thais and other foreigners — via bribery and false documentation — to trade and launder wildlife across the Mekong River between Laos and Thailand (Venevongphet, pers. comm., August 1990). This traffic was made famous by a book titled, *The Animal Connection* by Jean-Yves Domalain (1977), a Frenchman who ran a wildlife-trafficking business out of Laos between 1966 and 1970. (We have been told by several knowledgeable sources that this book still offers an accurate outline of how the wildlife trade operates.)

The arrests made in 1987 only slowed the wildlife trade in Laos, according to Venevongphet, director of the Forest Resources Conservation Project. Thais still run the Laos black market for poached animals and their parts, he told us. Poor Laotians do the poaching, and Thai wildlife dealers do the buying. The goods are then floated across the Mekong River at night. The Japanese are big buyers of wildlife in Thailand, Venevongphet said, particularly of bear paws. He said the Chinese also contribute to the wildlife trade problems in Laos. However, where Thais prefer to buy live bears, the Chinese would rather buy only the gallbladder.

Venevongphet said his country's biggest wildlife law enforcement problem lies along the borders Laos shares with Thailand and China. That problem promises to worsen as Laos and Thailand continue to demilitarize their common border (*Straits Times*, Singapore, 14 March 1991) and once a proposed bridge across the Mekong River opens up automobile and railway traffic between Laos and Thailand in 1994 (Ngaosyvathn 1990). The latter is expected to carry 75,000 automobiles and 200,000 tons of goods a year, and there already is talk of constructing a second bridge. This will considerably simplify smuggler's work.

CHAPTER EIGHT

THE BEAR TRADE IN MALAYSIA

BACKGROUND

Bear Biology

The sun bear, sometimes called the Malayan honey bear, inhabits the dense tropical lowland forests of peninsular Malaysia and the Malaysian states of Sabah and Sarawak in northern Borneo. Malaysia is being deforested at a rate of 2,210 square kilometers per year (Collins et al. 1991), which is affecting the habitat of the sun bear. Since there are no basic data on the ecology of the sun bear, the impacts of this deforestation are impossible to quantify. Despite lack of data, some wildlife officials believe Malaysia's sun bear populations are declining (P. Andau, letter dated 9 October 1988; S. Sira, pers. comm., May 1990).

Laws

Malaysia became a CITES party in 1978, under which the sun bear is subject to Appendix I protection. In addition, the sun bear is "totally protected" in peninsular Malaysia under the Wildlife Act of 1972, amended in 1988 (G. Lim, letter dated 22 August 1990). This protection prohibits capture of or trade in sun bears.

In Sabah and Sarawak, which are autonomous states, the sun bear's status differs from that in peninsular Malaysia. Sabah's Fauna Conservation Ordinance 1963 lists the sun bear as a game species (P. Andau, letter dated 9 October 1988). While the bear is considered rare and at risk in Sabah, it is not regarded as endangered or vulnerable at present (Davies and Payne 1982). In Sarawak, the killing, capture, selling, import, or export of bear requires a license (Nichols et al. 1991).

Law Enforcement

A conservationist in Malaysia described wildlife law enforcement as "minimal" (Anon., pers. comm., May 1990). While corruption is not a problem as it is in neighboring Thailand, there is a shortage of trained manpower for policing illicit wildlife trade (M. Kavanagh, pers. comm., May 1990).

Government conservation officials repeatedly told us that they knew little of trade in Malaysian bears and bear parts and paid little attention to the problem (government officials, pers. comm.). Yet Chinese medicine shops in Singapore, Taiwan, and Malaysia claimed they sold gallbladders from Malaysian bears. We do not suggest negligence in law enforcement but rather innocence of the scope and gravity of the bear trade. As G. K. Lim of Sahabat Alam Malaysia, a conservation group, told us: "Customs officials here are not familiar with wildlife and wildlife products therefore they tend to overlook [them] ...."

Hunting

On peninsular Malaysia, the sun bear is protected from hunting. Only the Orang Asli, peninsular Malaysia's aborigines, are allowed to hunt for subsistence. However, in 1988 and the first half of 1989, there were 1,100 violations of the Wildlife Protection Act, most of them involving hunting of protected animals without a license (*New Straits Times*, 31 May 1989). Some of those arrested for poaching have been Singaporeans and other "foreigners." In 1990, the director of the Department of Wildlife and National Parks in Kuala Lumpur told us wildlife offenses numbered as many as 5,000 per year (M. Kahn, pers. comm., May 1990).

In Sabah, a license is required to hunt sun bears, though no such licenses are issued (J. Payne, letter dated 17 August 1988; P. Andau, letter dated 9 October 1988). Bears are illegally killed because they are considered dangerous and also valuable due to the demand for their gallbladders (Davies and Payne 1982; P. Andau, letter dated 9 October 1988).

In Sarawak, "almost any animal constituting more than a mouthful or so of meat is liable to be captured for food..." (Caldecott 1988). In a door-to-door survey of one town and 16 longhouses, Julian Caldecott found 74 specimens from sun bears, mostly paws for sale in shops. An acquaintance wrote recently to tell us he had seen more than 100 bear claws and two bear paws for sale in a gift shop in the town of Miri (A. Penniket, letter dated 29 May 1990). The shopowners said the claws were from bears killed by local hunters in Sarawak's interior. While hunting is illegal in Sarawak "forest reserves," which make up 18 percent of the permanent forest estate, the people of Sarawak have legal right to collect forest "produce" in "protected forests," which constitute the remaining 82 percent of the permanent forest estate (Kavanagh et al. 1989).

Significant areas throughout Malaysia are being converted from primary forest to rubber and oil palm plantations. The oil palm attracts the sun bears who like to eat the heart of the palm trees. These vandals subsequently are shot to prevent further monetary loss and danger to plantation workers. Sun bears also raid banana, durian, and coconut stands, which again results in the loss of their lives. It is likely that the parts of these bears, too, are turned into profit on the food and medicine markets.

Bears as Medicine

Evidence of Chinese traders in Malaysian Borneo dates as far back as the first century b.c. (Chew 1990). The Chinese came to collect exotic jungle products such as rhino horn in exchange for ceramic ware coveted by the indigenous tribesmen (Chew 1990). In *The Head Hunters of Borneo*, published in 1881, Carl Bock wrote of the natives' delight in having shot two sun bears feeding in a palm tree on a coconut plantation: "Bagindo sold the hearts and gallbladder to a Chinaman trader for ten gilders. They were used in medicine..." Charles Hose wrote in *Natural Man: A Record from Borneo*, first published in 1926: "The tiger-cat and the honey-bear are hunted for their skins and teeth, and the dried gallbladder of the bear is sold for medicine to the Chinese." Today, the Penan of Sarawak still sell bear galls to the Chinese for about $19 a piece (B. Manser, letter dated 23 February 1991).

Chinese now make up 35 percent of Malaysia's 17.4 million people (Collins et al. 1991). Traditional Chinese medicine has long coexisted with Western medicine in Malaysia, and there is evidence that Chinese medicine's popularity is increasing across Malaysia's racially diverse population (Chen 1981).

Chinese medicine is not the only medicine practiced in Malaysia that uses bear bile, however. Malays make up Malaysia's majority, and traditional Malay medicine men, known as *bomohs*, have long prescribed bile of the sun bear after accidental falls from trees or to treat children with intestinal worms (Gimlette 1985). Some evidence suggests the Malays' use of bear bile as medicine may have been adopted from the Chinese (Marsh 1988). Bear bile is also an ingredient in traditional Malay poisons (Gimlette 1985).

Bears as Food

A few years ago, peninsular Malaysia's Department of Wildlife and National Parks raided a Chinese restaurant for selling meat from protected animals and found a number of bear paws in cold storage (M. Kahn, pers. comm. May 1990). In 1989, two Malaysian men were arrested after bear meat was found in their car (*New Straits Times*, 31 May 1989). At that time, a wildlife official was quoted as saying that these men probably were connected with "syndicates" that were using Orang Asli to poach protected wildlife for restaurants. These restaurants cater to Singaporeans who place their orders for bears and other protected species in advance, he said. Restaurants in Kuala Lumpur admit to still having bear paw on their menus, but insist the paws are all imported from China (G. Lim, letter dated 22 August 1990).

The Orang Asli also eat bears, though on an opportunistic basis (P. Hurrell, letter dated 23 July 1990). The Penan of Sarawak eat bear meat in "hungry times" and use bear skins for traditional dancing (B. Manser, letter dated 23 February 1991). The Kadazans of Sabah sometimes eat bear meat and use bear skins to make drums (S. Sira, pers comm., May 1990).

In Taiwan, diners reportedly have a preference for eating paws from Malaysian bears (*Asiaweek*, 16 February 1990).

Bears as Pets

From 1960 until the Malaysian government announced it would stop issuing permits for the keeping of pet bears in 1985, Kuala Lumpur's *New Straits Times* frequently ran stories about the pet-keeping phenomenon (*New Straits Times* library). Various British military units took on sun bears as mascots while stationed in Malaysia. Pet bears periodically escaped their cages to wander city streets. Even a Hollywood actress flew in to search for a pet sun bear to replace one she had had.

Today, sun bears can be kept in captivity only by government-issued permit in peninsular Malaysia. However, six illegal sun bear pets had been confiscated and were living in government holding facilities in May 1990 (M. Kahn, pers. comm., May 1990).

A similar pet-bear prohibition exists in Sabah, though timber workers and villagers continue to take cubs from the forest. Each year one or two are confiscated by government officials or handed in when the bears become too large to handle (Davies and Payne 1982). Between 1975 and 1989, 35 sun bears were confiscated or handed in and taken to Sabah's Sepilok wildlife sanctuary (C. Marsh, letter dated 3 July 1990). In 1990, there were about 16 bears being kept in captivity by private citizens in Sabah by state-issued permit (C. Marsh, letter dated 3 July 1990).

From Sarawak, where keeping pet bears also is against the law, we received a report of at least two captive bears being kept by Penan tribesman (B. Manser, letter dated 23 February 1991).

THE BEAR MARKET

We visited 13 Chinese medicine stores in Kuala Lumpur and in the cities of Kota Kinabalu, Lahad Datu, and Sandakan in Sabah (Table 6). Of those, nine showed us what were claimed to be bear gallbladders. The other four had no whole galls, though all carried capsules that were said to be packed with bear bile salts. Hemorrhoid ointment that listed bear gall as an ingredient was also sold.

We saw 87 whole gallbladders, which ranged in price from less than $1 per gram to $14 per gram. (Chinese merchants buy whole bear galls from Borneo's forest dwellers for $19; selling them for as little as $1 per gram still represents a threefold profit). These galls allegedly came from bears in Malaysian and Indonesian Borneo, China, Nepal, and Thailand. Merchants said they were good medicine for bruising, to cure heart and liver disease, and "for cooling" illnesses caused by the Chinese medicine concept of "heat."

In Kota Kinabalu, Sabahone shop had 36 whole and three partial galls. They were sold in sealed plastic bags of 10 each and the proprietor said they came from Nepal. Another shop in Kota Kinabalu had 12 small galls that were purported to be from sun bears. The shopkeeper told us he had already sold 12 galls to Japanese and Koreans that day. We had no reason to doubt that he might have done so, as there are many Japanese and Koreans engaged in the timber and mining industries in Sabah. He said most of his customers who buy bear gall are from Japan, Korea, and Taiwan.

In Sandakan, sometimes called the Hong Kong of Borneo for all its Chinese residents, one medicine shop had 32 galls. A tray of 16 smaller galls were said to be from Thailand. A second tray of 16 larger galls allegedly came from China. The shopkeeper said he had sold out of sun bear galls the day before, when Koreans had purchased seven. He said his best customers are Koreans working in a nearby tin mine. The local Chinese prefer local sun bear gallbladders, but they are more expensive, he said. In another shop in Sandakan, a small, not-yet-dried gall hung from a string over the owner's desk. It was from a local "honey" bear, the owner told us.

In Lahad Datu, Stephen Sira, senior ranger in the Wildlife Department office there said he sees some poaching of sun bears for meat and for skin; the latter is used by the local Kadazan natives for making drums. Sun bears are commonly killed for their gallbladders, he said. The local Chinese buy them from villagers, then either resell them locally or ship them to Hong Kong and Taiwan (which agrees with what we were told by Chinese medicine merchants in Taiwan). It is illegal, Sira said, but hard to stop because his department is shorthanded. He felt that the sun bear population was declining as agriculture expanded, the forest was cut, and the resulting roads provided easier access for poaching.

We inquired about buying live bears at several pet shops in Kuala Lumpur, but were told that such pets were either illegal or unavailable. One pet-shop spokeswoman told us that the only way to get a live bear would be to have the Orang Asli trap one.

A worker at Sabah's Danum Valley Conservation Area told us of a sun bear she had adopted at a logging camp near Tawau, a port city south of Danum. A forest survey team that comes out of the forest only five days each month brought her a sun bear cub. They claimed it had fallen out of a tree while its mother was gathering honey. This woman fed the cub until she had to leave the camp. She left it in a cage at the camp along with two other sun bears. She said she knew of at least two sun bears sold out of that logging camp as pets.

Patrick Andau, director of Sabah's Wildlife Department, said his department receives many sun bears when new areas of forests are opened up to timber concessions (pers. comm., May 1990). They have had as many as ten at one time. A total of 32 have been released back into the wild (C. Marsh, letter

Table 6.

Sampling of Bear Gall Prices in Malaysian Shops (May 1990).

Shop #/Location	Bear Gall Sold	Price	Stated Origin	Comments
1 / Kuala Lumpur	No	N/A	N/A	Capsules only.
2 / Kuala Lumpur	Yes	$3 / gram	Not specified	1 whole gall seen. Shop needed overnight to obtain.
3 / Kuala Lumpur	Yes	$1 / gram	Not specified	2 whole galls seen.
4 / Kuala Lumpur	Yes	$14 / gram	China	1 whole gall seen, "authenticity guaranteed." This is a factory outlet with outlets all over Asia.
5 / Kuala Lumpur	Yes	$3 / gram	Not specified	1 partial gall seen, plus crystals.
6 / Kota Kinabalu	Yes	$1 / gram	Nepal	36 whole and 1 partial gall seen.
7 / Kota Kinabalu	No	N/A	N/A	Capsules only.
8 / Kota Kinabalu	Yes	$4 / gram	China	12 small galls seen, all from sun bears. Shop sold 12 that day to Japanese and Koreans.
9 / Lahad Datu	No	N/A	N/A	Capsules only.
10 / Sandakan	No	N/A	N/A	Capsules only.
11 / Sandakan	Yes	$1 / gram	Borneo	2 small galls seen, both from sun bears.
12 / Sandakan	Yes	$2 / gram	China, Thailand	32 small galls seen; sold 7 to Koreans day before. Japanese and Koreans are best customers. Local Chinese prefer local bears, but local bears are more expensive.
13 / Sandakan	Yes	$2 / gram	Borneo	1 whole gall seen drying, from local sun bear.

dated 3 July 1990). No one knows what became of them, though we had received a report of one prior to talking with Andau. "Recently the Forestry Department released a bear in our area someone had kept as a pet," wrote Sandy Bill of Pacific Hardwood Sdn. Bhd., a Weyerhaeuser subsidiary operating in Sabah (letter dated 27 December 1988). "It provided a lot of humorous entertainment, stealing lunches and sitting on machines, but it has not been around for a couple of months. I am afraid it did not know how to live in the wild."

Andau said he intended to put Sabah's sun bear on the protected list, even though there still is not sufficient scientific data to support such a move (pers. comm., May 1990). He said he suspects the bear is more endangered than he had thought. He said his officers have found evidence of the bear trade in the form of bear paw soup, bear claw jewelry, and gallbladders. It is illegal to sell bear gallbladder in Sabah, but when Wildlife Department officials find it for sale they have difficulty proving it is actually from a bear, Andau said. There is no point in conducting a raid on a shop selling bear galls if there is no proof that will stand up in court, he said. As for CITES permits issued for exports of bear galls, Andau said: "People don't even apply because we don't allow it."

We also talked with the CITES officer for peninsular Malaysia, Ahmad Shamsuddin Haji Shaari of the Department of Wildlife and National Parks in Kuala Lumpur. He reported no permits issued for exports of bears or bear parts from 1987 through 1989, except one live bear sent to the Netherlands on a zoo exchange. He did, however, mention reports of bear smuggling from Sabah and Sarawak to Thailand and Singapore. He said he felt most of the galls for sale in peninsular Malaysia were imported from China, though he had no CITES records to confirm that. Islam, the religion of Malaysia's majority, prohibits the keeping and killing of animals, he said, so it is only the Chinese who engage in these practices. As far as he was concerned, the bear trade was incidental.

CHAPTER NINE

THE BEAR TRADE IN NEPAL

BACKGROUND

Bear Biology

The sloth bear lives in the lowland sal forests of Nepal's southern Terai region along the border with India, which includes Chitwan National Park. The Asiatic black bear inhabits the mountain valleys in the foothills of Nepal's Himalayas. The presence of the brown bear in Nepal is unverified (Servheen 1990).

Laws

Nepal became a party to CITES in 1975. The brown bear is protected under the National Parks and Wildlife Conservation Act, 2029, but the sloth bear and Asiatic black bear are not listed (Nichols et al. 1991).

Law Enforcement

The Department of National Parks and Wildlife Conservation is responsible for policing illegal trade in bears and bear parts, though the bear trade may not be a high priority at this time (S. Dhungel, letter dated 22 July 1990). CITES annual report data show that six "bone products" from Asiatic black bears were exported illegally from Nepal to the United States between 1980 and 1988 and that four skulls of the same species were also exported to the U.S. during that same period. During 1988, Nepal shipped 6,000 grams of bear gall to South Korea (TRAFFIC Japan memo to K. Johnson dated 5 August 1991). If what informants in other countries said is true, Nepal now appears to be exporting significant amounts of bear gall to other Asian countries as well.

Hunting

Bears can be killed legally in defense of people, property, or livestock (Nichols et al. 1991). Hunters must obtain a license from the Department of National Parks and Wildlife Conservation to hunt bears, and no more than two or three bears are taken under license each year (H. Mishra, letter dated 16 July 1990).

"Nepal does not export bears officially, except trophies collected by hunters," according to Hemanta R. Mishra of the King Mahendra Trust for Nature Conservation (letter dated 16 July 1990). However, illicit hunting of bears remains a problem, according to Sanat K. Dhungel of Nepal's Forest Department (letter dated 22 July 1990). Because guns can be had by permit only in Nepal, and permits are difficult to obtain, what poaching occurs is likely done via traditional trapping methods (A. Joshi, pers. comm., February 1991).

Bears as Medicine

Tibetan medicine prescribes bear bile in combination with other ingredients to lower fever, cure diseases of the lungs and liver, stop nose bleeds, stem excess menstrual flow, and more (Rinpoche 1976). Nepalese use bear gallbladder for medicinal purposes (H. Mishra, letter dated 16 July 1990). There also is evidence that Nepal's bears are being killed for their gallbladders to supply medicine to foreign markets. "Bear gallbladder trade is very lucrative in Nepal," we were told by Dhungel (letter dated 22 July 1990). "[The] gallbladder comes in... from [the] mountains, and it is sold in Kathmandu at a higher price to such traders who smuggle [it] out to Korea and Japan, Malaysia and Singapore..." These shipments leave via Kathmandu Airport, according to Dhungel.

Bears as Food

"I do not know anywhere in the Kingdom of Nepal, where it is possible to dine on bear meat or any particular part," Mishra told us (letter of 16 July 1990). We found no restaurant in Kathmandu, Nepal's capital and only urban center, serving bear meat or bear paws. Black marketeers in Nepal, a country that caters to low-budget travelers and where the per capita share of the GNP is only $170 annually, would probably make greater profit by exporting edible bear parts.

Bears as Pets

Bear charmers from India sometimes are seen in the streets of Nepal (H. Mishra, letter dated 16 July 1990), but we heard no reports of bears being kept as pets.

THE BEAR MARKET

While in Kathmandu, we interviewed Swami Dharmjyoti, who was then staffing the Hotel Vajra's East-West Library. Dharmjyoti's ashram is in Janakpur, southwest of Kathmandu along the Nepal-India border. He was very familiar with bear gall as a medicine and said it is called ***bhalu ko pitta*** in Nepali or ***rksa*** in Sanskrit. Tharu tribesmen of the Terai region use bear gall and also sell it, he said. He claimed he used it, mixed with honey a gram at a time, as a liver and spleen tonic. When sick people come to his ashram for help, he said, the monks give them bear-based medicine. He said hunters in the forests of southern Nepal "shooted many, many bears." For $50, he said, he would go buy us a bear gallbladder from the hunters who live around his ashram. "I can bring up to 150 grams — no more than that," he said. "Sometimes I have to go to two or three villages to find it. It is not something that is available everywhere." When we told him that that price seemed very cheap for real bear gall, he replied: "For 15 rupees (47 cents), we can eat everything we want. It is only half a dollar to you, but for us it can fill the stomach."

We asked at the front desk of Hotel Vajra where we might find some *dhomte*, the Tibetan word for bear gall, and were referred to the Kunphen Tibetan Medical Center near the heart of Kathmandu. "Do not ask for this on the street," a woman at the Tibetan medical center's herbal pharmacy warned. "It is not the real one." The going price is about $3 per gram, she said. She said the Sherpa people of the Solu Khumbu region of eastern Nepal around Mount Everest sell bear galls. But they are fake, she said. They save the real ones to use themselves. (This information coincides with comments by R. Jackson to WWF in a letter dated 8 September 1989, which said: "There is some evidence to suggest more bears are being killed for the commercial market in East Nepal.")

Merchants in Kathmandu's Durbar Square market area said bear gall was very hard to find. "Some Tibetan people have it," one merchant said. "It comes from highest mountain. *Bhalu* [bear] only live there." We also were told to ask for it in villages around Chitwan National Park, which is famous for, among other species, its sloth bears. We asked at several ayurvedic medicine stalls. Each shop suggested another to try, but none claimed to have bear gall. We eventually were referred to what is called "Nepali Hong Kong Market," a large dirt field where merchants set out their wares on blankets and tables. An old man selling a pangolin skin and deer legs along with sundry other folk remedies produced a small chunk of dried bear bile from his wallet. He said he had had it 12 years. It probably weighed three or four grams. He offered to sell it to us for $8. At a table selling monkey skulls, crystals, human bones, and scores of animal bits, we found 11 bear claws and squares of black bear hide with fur attached. We were told that the claws were for pendants which, when mounted in silver, bring good health. Nepalis and Newars grind up the bear hide with other animal parts and hang the ingredients in a cloth bag around their necks for "black magic" to ensure good health.

Early the next morning, a Tibetan man came to our hotel room with two whole gallbladders. He did not know the origin of the galls, he said, because they belonged to a Tibetan medicine man in a nearby village. He pulled out a brass scale and weighed them both. They were small and together weighed about 45 grams. He wanted $2 per gram. He was willing to leave them with us so we could take them to the Tibetan medical center for verification that they were truly bear gall.

CHAPTER TEN

THE BEAR TRADE IN SINGAPORE

BACKGROUND

Bear Biology

Singapore is an island city-state, which until granted independence in 1965 was the southern tip of peninsular Malaysia. No bears are known to inhabit its 620 square kilometers at this time (K. Poh, letter dated 2 July 1991).

Laws

Singapore became a CITES party in 1987. The Endangered Species (Import and Export) Act of 1989 implements CITES (Section 4, Annex B). It also requires a permit from the Primary Production Department CITES Unit for the import or export of all bear species, except the American black bear, and their parts (S. Khoo, letter dated 2 July 1990). Violators are subject to a maximum fine of $5,682 and/or up to a year in jail, plus confiscation of the wildlife involved.

Law Enforcement

In June 1991, six bear cubs were discovered in the Bangladesh port city of Chittagong aboard a Korean ship bound for Singapore (K. Huda, M. Rahman, Q. Banu and M. Sadiq, letter to IUCN/SSC dated 29 June 1991). Sources there say Korea- and Singapore-flagged ships in particular are known to smuggle wildlife out of Bangladesh through Singapore. As of 1990, Singapore was the world's second largest port in terms of tonnage passing through annually (U.S. Department of State 1990). "At any one time, there are more than 400 ships in port," says a 1985 edition of Insight Guides *Singapore*. "One arrives or weighs anchor every 10 minutes or less. One ton of cargo is handled in less than one second, every second of every day of the year." Singapore's Primary Production Department, now charged by law with controlling trade in endangered species, has two officials in charge of CITES enforcement (see "The Bear Market" in this chapter).

Hunting

Because there are no wild bears on the island of Singapore, hunting is not a factor for concern or regulation.

Bears as Medicine

Chinese make up 76 percent of Singapore's 2.6 million people (U.S. Department of State 1990). Singaporeans enjoy the third highest GNP per capita in Asia, after Japan and Brunei (*Asiaweek*, 26 April 1991). Since 1962, Singapore has adopted its traditional medicine curriculum from Chinese medical schools in China, and visiting lecturers are brought in from Hong Kong, Taiwan, and China (Quah 1989), indicating a uniformity of practice with other Chinese nations. As of 1989, the Singapore Chinese Physicians' Association had 882 members, and 800 shops were dispensing Chinese medicine (*Straits Times*, 8 October 1989).

Still, very few Singaporeans use Chinese medicine to the total exclusion of Western medicine (Quah 1989). In fact, surveys show declining attendance at traditional Chinese clinics (Quah 1989). However, research also shows that one out of every two medicines Singaporeans use for self-medication are traditional medicine. The most telling testimony about medical trends in Singapore probably is that of the Singapore Chinese Druggists Association and its more than 500 members, most of whom have added Western medicines to their stock. "My shop would not be able to survive if I had stuck to selling only Chinese medicines," the proprietor of a medical hall told the *Straits Times* (22 September 1989). "A lot of people nowadays, especially the young professionals, do not believe in Chinese medicine anymore — they prefer a Panadol to Chinese herbs for their cold."

The case of Chinese medicine was not helped in Singapore when, in 1990, headlines announced that certain Chinese-made medicines where found to have unsafe levels of mercury and arsenic (*Straits Times*, May 1990.) Two Singaporeans died in July 1990 after taking a Chinese "wonder" drug for diabetes (*Straits Times*, 24 July 1990). Whether Singaporeans' exodus away from traditional medicine extends to the use of bear gallbladder, which is normally used only for very serious ailments such as liver disease, deserves more study.

Bears as Food

Wherever there are Chinese with ample money, there often is bear paw on the menu. This holds true in Singapore as well (see "The Bear Market" in this chapter).

Bears as Pets

We saw no bears kept as pets in Singapore. In reply to a letter asking whether the government has issued any permits for this purpose, M. S. Lim replied that "people in Singapore do not keep bears as pets" (letter dated 7 August 1991).

THE BEAR MARKET

We checked for bear gallbladder at 25 Chinese medicine shops in Singapore (Table 7). Of the total, 16 sold gallbladders allegedly from bears. Of the nine that did not have gallbladders, several said they could refer us to shops that did and several asked us if we were selling galls. In all, we saw more than 150 whole gallbladders allegedly from bears.

Prices ranged from $1 to $33 per gram and averaged about $9 per gram. Authentic galls were most likely among the more expensive.

China was most often identified as the origin for the gallbladders we saw. Others were said to come from Indonesia, Nepal, the Soviet Union, Burma, and Malaysia. One shop owner stated that it was common to see bear galls from India in Singapore, and had more than 50 on hand to prove his point. Another apothecary showed us three whole galls, which he claimed came from the United States. A woman shopkeeper said she buys bear gall in "all countries," wherever she can find it for sale. A man in one of the two shops that sold galls from the Soviet Union said he was expecting a two-kilogram shipment of Soviet galls the following month. He claimed these come with a certificate of authenticity from the Soviets.

One apothecary said his bear gall was old stock. "Cannot find bear anymore to kill," he said.

Many shopkeepers said that golden bile salts are best and most expensive, while darker crystals are of lesser quality.

In a medicine shop across the street from the new Raffles Hotel, perhaps Singapore's most famous landmark, the owner told us his five cellophane-wrapped bear galls all came from China. They have to be smuggled out, he admitted, because of a "government ban" imposed by the Chinese. He sells most of his bear galls to Japanese, he said.

The shopkeeper with the scores of Indian galls told us of a Korean who came in and bought a whole gall for $450 cash. The buyer proceeded to slice it up on the spot and swallow it down with a beer chaser.

Only one shopkeeper seemed nervous answering questions about bear gallbladder. Most had their galls displayed prominently and no one mentioned the fact that the sale of bear gall violates Singapore law.

At Thong Chai Medical Institution, one of Singapore's two largest traditional medicine organizations, Chong Shaw Fong, a staff physician, said the clinic does not dispense bear gall because all services are gratis and bear gall is too expensive to give away. When it is prescribed, patients are expected to buy it at an herb store. The clinic does, however, use hemorrhoid cream from China that contains bear gall. Bear gall is hard to find, he said. A lot of people keep it at home and use it for self-medication. The demand for bear bile is increasing, according to Chong. "Not because of money but because bear bile has a long history and is very effective," he said. "Bear bile is like the real pearl or wild ginseng — very precious." When asked about using synthetic bear bile (see "Substitutions" chapter) as a substitute, he responded negatively. His institution uses Chinese herbs, he said, not "Western herbs." Bears also make businessmen rich, he said. "They buy for $100 and sell for $200."

The next day we talked with Ho Wing, herb seller and another member of the Thong Chai staff. Ho brought two gallbladders with him. One weighed 218.6 grams, the largest gallbladder we encountered during this project. It was from the Soviet Union, Ho said, and valued at $2,842 or $13 per gram. He told us the best quality galls come from the United States. The origins of preference, in descending order, are the United States, India, and Nepal. Golden galls are the best, he said, and if one keeps a U.S. gallbladder for a long time it remains golden. He imported gallbladders from India 30 years ago. A bear gall sold for $7 apiece back then. Today the same gall would sell for $500. Many Japanese buy bear galls in Singapore, he said. Perhaps 40 percent of the buyers are Japanese. Ho sells about 1.5 kilograms of bear galls each year, he said. "In Singapore, there are many bear biles which are not real," he added.

The Dynasty Singapore is one of the most elegant and Chinese of Singapore's international-class hotels. We inquired about eating bear paw at the hotel's Tang Court Cantonese Gourmet Restaurant. "Bear paw, of course," said manager Chuang Koh-tick. "But it must be ordered in advance. We must import from China." That would take about four days, he said. The cost would be about $170 per one-paw serving.

The Imperial Herbal Restaurant in the Metropole Hotel is a traditional health-food restaurant, with a chef from Tianjin, China, and a Chinese physician/herbalist always on duty. Charlie Tay, the restaurant's captain, said the kitchen would need two days' advance notice to prepare a bear paw. The price would be $230 for a dish that serves 10. "The government does

Table 7.

Sampling of Bear Gall Prices in Singapore Shops (March 1991).

Shop #/Location	Bear Gall Sold	Price	Stated Origin	Comments
1 / Singapore	No	N/A	N/A	"Difficult to find in Singapore because it is hard to tell the real thing."
2 / Singapore	No	N/A	N/A	None
3 / Singapore	No	N/A	N/A	None
4 / Singapore	Yes	$15 / gram	Not specified	You can tell the real thing by its golden color.
5 / Singapore	Yes	$2–5 / gram	China	22 whole galls in tin box behind counter.
6 / Singapore	Yes	$3 / gram	China	35 whole galls seen.
7 / Singapore	Yes	$6 / gram	Indonesia	5 whole galls seen.
8 / Singapore	Yes	$8 / gram	India	Owner said it is common to find gallbladders from India in Singapore. 50–60 whole galls seen.
9 / Singapore	Yes	$1 / gram	Nepal	5 whole galls seen.
10 / Singapore	Yes	$1 / gram	Soviet Union	14 whole galls seen. Owner asked if we were selling.
11 / Singapore	Yes	$11 / gram	Soviet Union	1 extra-large gall seen. Owner expecting 2-kilogram shipment from USSR. Soviet galls come with certificate of authenticity.

not allow," Tay said, referring to bear paw entrees. But the paw on hand was one of three the restaurant brought in by permit from China more than two years ago to promote its grand opening.

We called five of Singapore's 47 bird importer/exporters to inquire about the selling of live bear. One said, "It's illegal." Another asked, "How many do you want?" then said none was available. Yet another said, "Not allow to sell in Singapore." Others simply said "no" and hung up.

After checking on the availability of bears and bear parts, we visited Dr. Leong Hon-keong, the Primary Production Department veterinarian who, with one assistant, is charged with enforcing CITES in Singapore's medicine shops and restaurants. "To my knowledge, the sale of bear parts is very limited in Singapore," he told us. He said he and his staff had surveyed medicine shops looking for gallbladders two or three years earlier and concluded that fewer than 10 percent sold bear gall. There have been no prosecutions for selling bear gall. Regarding the

Table 7 (continued).

Shop #/Location	Bear Gall Sold	Price	Stated Origin	Comments
12 / Singapore	Yes	$31 / gram	USA	3 whole galls seen, plus crystals. Golden bile salts are best.
13 / Singapore	No	N/A	N/A	Owner asked if we were selling galls.
14 / Singapore	No	N/A	N/A	Owner asked if we were selling.
15 / Singapore	Yes	$3 / gram	China	5 whole galls seen. Owner admitted smuggling. Most buyers are Japanese.
16 / Singapore	No	N/A	N/A	None.
17 / Singapore	Yes	$3 / gram	China	Partial gall only.
18 / Singapore	No	N/A	N/A	6-8 gallbladders seen, but owner said, "No bear!"
19 / Singapore	Yes	$3 / gram	Burma	3 whole galls seen.
20 / Singapore	Yes	$13 / gram	China, Malaysia, Indonesia, "all countries."	1 whole gall seen.
21 / Singapore	Yes	$2 / gram	Nepal	4 whole galls seen.
22 / Singapore	Yes	$33 / gram	China	1 whole gall seen.
23 / Singapore	No	N/A	N/A	None.
24 / Singapore	No	N/A	N/A	None.
25 / Singapore	Yes	$17 / gram	China	Owner claimed his bear gall was old stock. "Cannot find bear anymore to kill."

likelihood of bear paw entrees, he said: "It is very difficult to eat wildlife here. I am quite certain you could not find bear paw in Singapore."

Leong seemed surprised at our ease in finding bear galls and paws for sale. But he was not surprised that foreigners fared better than he or his staff. Singapore is a small town where wildlife trafficking is concerned. A dealer once told Leong he would never learn a thing about the illicit animal trade because everyone involved knew everyone else, and a law enforcement officer would be obvious to them. Even if Leong could retrace our steps and confirm what we saw, he said, it would be difficult to prosecute effectively. Traffickers essentially must be caught in the act, according to Singapore law. Otherwise, anyone caught holding bear parts need only claim they were imported prior to Singapore's joining CITES in 1987. "Most say they've had it [their wildlife contraband] for years, years, and years," Leong said.

"Our biggest problem is with identification," he said. Even if they could prove smuggled galls were from a bear, the owner need only claim they were from American black bears or Soviet brown bears to escape prosecution. A CITES Appendix III listing for these bears would not help, he said. It is not practical to add Appendix III to Singapore's endangered species schedule, as his department would end up writing permits "like nobody's business." "If you are really keen on protecting bears," Leong added, "I would put them all on Appendix II."

"We have a wildlife control program," he said, "but bear gallbladder is not at the top of the list." At the top of the list are rhino horn, tropical birds, primates, and crocodiles. "It's not that we're not going to control bear parts," Leong added, "but there are other things that are more important."

THE BEAR TRADE IN TAIWAN

BACKGROUND

Bear Biology

Only the Asiatic black bear is native to the island nation of Taiwan. This species inhabits the rugged mountains to the east (Wang 1989; Servheen 1990). As of this writing, there is no definitive information on the status, biology, or distribution of Taiwan's black bears.

Laws

Taiwan, also known as the Republic of China, is not eligible to join the United Nations and is, therefore, ineligible to be a party to CITES. On June 23, 1989, Taiwan enacted its Wildlife Conservation Law, which provides protection for all CITES Appendix I fauna, including the Asiatic black bear, sloth bear, sun bear and giant panda, plus most Appendix II fauna, including all Appendix II bear species (Wildlife Conservation Law No. 1-3266). Taiwan's own Asiatic black bear is listed as endangered under the Wildlife Conservation Law (Nichols et al. 1991).

Law Enforcement

"To forestall trafficking in bears and their products, the Wild Animal [sic] Conservation Law stipulates that anyone who is found to have sold or displayed protected animals shall be subjected to imprisonment for up to two years, forced labor service under detention, or a fine up to NT $20,000 [US$741]," Ling Shiang-nung, vice-chairman of the Council of Agriculture, told us (letter dated 16 July 1990). "So far this strict regulation has served as an effective deterrent to those who contemplate dealings in protected wildlife species."

Taiwan's Council of Agriculture made very obvious in the media its intention to stop trafficking in endangered and threatened species. In late 1990, some 75 kilograms of wildlife contraband, including bear paws, were destroyed at a public burning (*Free China Journal*, 3 December 1990). At that time, Yu Yu-hsien, chairman of the Council of Agriculture, proclaimed the act a symbol of Taiwan's "firm resolve to promote the conservation of endangered species, and to ban illegal trafficking in these species and their products."

Our research contradicted these assertions where bears and bear parts are concerned.

Hunting

In a survey of game shops conducted from 1985 to 1988, Wang Ying of National Taiwan Normal University found 10 shops that admitted to selling approximately 91 bears during that period for their gallbladders, bones, paws, meat, and hides (Wang 1989). At that time, gallbladders were selling for prices ranging, by weight, from $363 to $1,454. Paws ranged from $181 to $363. Bear meat sold for $34 per kilogram. Hides, though not in great demand, could fetch $305. The average price for a whole bear in 1987 was $2,713, nearly the equivalent of half a year's wage for the average Taiwanese worker at the time. More than half the 97 aboriginal hunters Wang interviewed said they would hunt bears. This survey has not been repeated since the Wildlife Conservation Law went into effect in 1989.

Chen Huisheng is currently conducting a follow-up survey of game shops for Wang, specifically concerning bears. Chen stated that hunters continue to kill bears and sell them and/or their parts to game shops, despite the Wildlife Conservation Law (pers. comm., June 1991). At least three bears reportedly were killed for their gallbladders in 1990 by hunters in the Lala Mountain Reserve, set aside especially for bear protection. One game shop Chen visited had 20 people on a waiting list for various parts of bears. Hunters reported to Chen that they earned more than $1,000 for a bear's gallbladder, more than $700 for its hide, and more than $1,000 for its four paws. A live Asiatic black bear cub will earn nearly $2,000 for the hunter and three times that for a pet retailer (H. Chen, pers. comm., June 1991). Two years ago, a game shop sold a five-month-old Asiatic black bear for more than $5,000. The buyer then gave the bear to the Taipei Zoo.

In July 1991, the Taiwan Provincial Administration reinstated a "forestry police" force that had been disbanded in 1960. The restored police contingent is made up of 172 law enforcement officers, who now are charged with stopping poaching of plants and animals in the island's eight forest areas (*Free China Journal*, 4 June 1991). This may, indeed, slow illegal hunting of bears.

Bears as Medicine

Taiwan Chinese, like their relatives across the straits in mainland China, use a mix of Western and traditional Chinese medicines, though the two practices are far less integrated in Taiwan than on the mainland (Unshuld 1976). Taiwan's Department of Health is about to establish a national plantation for medicinal herbs (*Free China Journal*, 15 April 1991), and Taiwan is now promoting medical exchanges between its Chinese medicine experts and their counterparts on the mainland. There is evidence that Taiwan's newfound and still increasing prosperity has spawned a renaissance in traditional health tonics (*Free China Journal*, 3 August 1990). "Almost every person returning to Taiwan from the mainland, and they are visiting by the hundreds of thousands, brings back some kind of Chinese medicine...," according to an editorial in a Taiwanese newspaper (*Free China Journal*, 3 December 1990). Sources in China told us that Taiwanese are among the best customers for both black market and farmed bear gall (see "China" chapter).

In 1970, there were 515 traditional pharmacies in Taipei (Unshuld 1976). In 1991, more than 800 belonged to the Taipei Chinese Medicine Association, and more than 1,000 were listed in the telephone directory. Asked if all 800-plus members of the Taipei Chinese Medicine Association sold bear gallbladder, a board member said that bear gall was a staple medicine in every traditional pharmacy that belonged to his organization.

Between 1979 and 1984, Taiwan reported legally importing 6,096 kilograms of bear gall (the approximate equivalent of more than 60,000 gallbladders), mostly from Thailand but also from Singapore, Hong Kong, Canada, and "other countries" (Board of Foreign Trade and ROC Customs statistics). No significant legal imports were recorded from 1985 to 1989 (Table 8).

Taiwan exports bear gall as well. In 1979, 190 kilograms of bear gall left Taiwan for Japan, while 300 kilograms went to West Germany (Board of Foreign Trade and ROC Customs statistics). According to import data from South Korea, Taiwan shipped 17 kilograms of bear gall (representing roughly 170 bears) to South Korea from 1985 to 1989 (TRAFFIC Japan memo to K. Johnson, dated 5 August 1991). The latter exports to South Korea do not appear in records of legal exports.

The implausible quantities and inconsistencies in these Taiwan import and export data point up the unreliability of trade reporting where bears and bear parts are concerned.

Table 8.

Taiwan's Legal Bear Gallbladder Trade, 1979–1989.

Country		Export		Import	
		Quantity*	Value†	Quantity*	Value†
1979	West Germany	300	166		
	Japan	190	76		
	Singapore			470	486
	Thailand			5,293	2,412
	Other Countries			320	30
1980	---------	-----	-----	-----	-----
1981	Canada			3	62
	Singapore			4	89
1982	Canada			-----	8
	Hong Kong			3	321
1983	Canada			3	58
1984	---------	-----	-----	-----	-----
1985	---------	-----	-----	-----	-----
1986	---------	-----	-----	-----	-----
1987	---------	-----	-----	-----	-----
1988	---------	-----	-----	-----	-----
1989	---------	-----	-----	-----	-----

* in kilograms

† in 1,000 N.T. $ (N.T. $26 = U.S. $1 in June 1991)

Source: Board of Foreign Trade and Republic of China Customs statistics.

Bears as Food

Some Taiwan diners reportedly favor restaurants serving bear's paw (*Asiaweek*, 16 February 1990). The front paws are preferred (Wang 1989). A game-shop survey now in progress further documents a demand for bear paws (H. Chen, pers. comm., June 1991) that has survived enactment of Taiwan's Wildlife Conservation Law.

Bears as Pets

It has become "chic" in Taiwan to keep wild animals as pets, according to a report in the *Free China Journal* (28 July 1991). There currently are 140 bears registered with the Taiwan government as pets, of which about 120 are sun bears imported form Southeast Asia (H. Chen, pers. comm., June 1991). No one has yet censused unregistered bears (Y. Chang, pers. comm., June 1991). Despite the Wildlife Conservation Law, pet shops continue to sell bears. Sun bears usually sell for just under $2,000, while Asiatic black bears can sell for more than $5,500 (H. Chen, pers. comm., June 1991).

We went on a walk with two sun bears bought recently by the owner of a small leather-goods shop in downtown Taipei. It is not uncommon for business owners to place bears outside their establishments to attract customers (Wang 1989). Both of the leather-shop bears were purchased illegally as cubs from Taipei pet stores for between $1,800 and $2,600. Both bears had been declawed. The male bear is two years old and spends his days on a three-foot chain atop a ledge outside of the shop. The female is one year old and lives in a three- by four-foot cage inside the shop. Now that the bears are nearly full grown, the owner finds them difficult to care for. He would like to sell them to recoup their purchase price. He is angry that the Wildlife Conservation Law makes it illegal for him to do so.

Some owners of unwanted pet bears sell them to game shops and tell the government that they died of some illness, according to Chen. He also has heard reliable reports of weary pet owners releasing their sun bears into Taiwan forests. He has even had hunters tell him tales of taking sun bears in the wild on Taiwan.

To date, there are no reports of Taiwanese farming bears for their bile. However, Chen had interviewed a man in Kaohsiung who keeps more than 20 bears in captivity and refuses to talk about his purpose for keeping so many bears.

THE BEAR MARKET

We checked for bear galls along and around Taipei's Di Hua Street, which is famous for its scores of Chinese apothecaries. Medicine shops from other parts of the island send representatives here to buy bear galls for their stock. Approximately 10 shop owners refused to talk because, they said, other foreigners had come around in the past investigating the trade in rhino horn for international conservation groups. In all, 34 medicine shops with personnel willing to talk were checked (Table 9). Some shopkeepers were more forthcoming than others. Thirty of 34 said they sold bear gallbladder. Among the four shopkeepers who said they did not have bear gall, one claimed the practice ran counter to the owners' Buddhist beliefs, one said he did not wish to break the new conservation law, and another said his shop had just opened so he hadn't yet had time to stock bear gall. The fourth simply told us he did not sell it and refused to say more.

In one shop, we saw a tray full of 25 to 30 whole galls, allegedly all taken from Asiatic black bears in Southeast Asia. In another shop, whole galls came sealed by the dozen in plastic bags. Some shops displayed partial galls, their sacks broken open where shopkeepers had been scooping out crystalline bile salts to sell by the gram. Most displayed glass jars filled with opaque brownish-gold, brownish-red, or brownish-green bile salts. Dealers claimed that loose bile crystals are preferred by Taiwan users and are more expensive. Gallbladders and jars of bile salts were not hidden in a safe place as were those in South Korea, nor were they displayed prominently as in Hong Kong. Most often, they were in a discreet location, usually behind the counter or behind jars of other more common ingredients such as pearls or gazelle horns.

Prices ranged from $8 to $30 per gram, making a whole gallbladder of average weight worth $800 to $3,000. The broad range in pricing probably was due to several reasons, including the fact that some of the shops were wholesale outlets. The perceived quality of the bile was another variable. Country of origin, color, and bear species were all mentioned as pricing factors, though some sellers said only the color was important.

Many shop owners expressed a preference for Chinese bears. Taiwan bears were also favored. However, other dealers claimed bears from India produced the best medicinal bile. One man read from a medical text that specifically recommended the gallbladders of bears from China's Jilin, Heilongjiang, and Yunnan provinces. Many shopkeepers said the gallbladder of Southeast Asian bears was of lesser quality. One wholesaler said he preferred bear galls from Southeast Asia because he believed all those from China were now from captive-bred bears. A buyer for another shop stated that the best bear galls come from colder climates. He mentioned both northern China and Alaska specifically. He said galls from the lower 48 states were too small — an opinion expressed by others as well. But those from Alaska are large and, therefore, very desirable. This buyer said he bought most of his galls from a Hong Kong broker, but said people from Wisconsin once came to his shop selling gallbladders from American bears. He repeatedly asked if we had galls to sell. Another shopkeeper said that, while gallbladders from the lower 48 states were not as good as those from Alaska, he felt assured they were authentic because bear hunting is legal in the United States. Yet another said that bear gall is so scarce that one cannot be particular about what country it comes from.

Color variations, in order of preference, are golden-brown, reddish-brown, greenish-brown, and black. There was unanimous agreement that golden bile was the best. What was referred to as *soo* gallbladder, gold-colored bile salts from Chinese bears, was most highly valued, while the nearly black bile salts of the Malayan sun bear were said to be least coveted. One merchant told us that color is what gives farmed bile away as inferior. This man also said that color is determined by the season when a bear is killed and the method by which it dies.

Some shopkeepers said Asiatic black bears yielded the most effective gall followed by brown bears. At least one shopkeeper said it was the other way around. One explained that polar bears eat too much fish, therefore their bile salts take on an unpleasant taste. Another said Himalayan black bears yield the best bile. Most agreed that Malayan sun bears were less desirable. One man declared that the gallbladders of all bear species have the same efficacy, as long as they are hung to dry rather than drying flat.

Two merchants mentioned that some unscrupulous sellers will inject gallbladders fresh from a bear with either pig bile or soil so that they become heavier and, therefore, more valuable after drying. Shopkeepers mentioned the problem of fake galls, but claimed they could tell the real thing from a fake based either on experience or by various tests. When placed in water, a sample of real bear bile will spiral to the bottom of the glass, one apothecary said. Another swore by dropping a bit in dusty water. If it is the real thing, he said, the dust will disappear. Yet another shop spokesman recommended dropping the bile in water. If it rises straight as it dissolves, then it is from a bear. The bile of any other animal will dissolve at the bottom of the glass, according to this source. Several shop owners claimed that taste was another factor in positively identifying real bear bile. Some insisted we try a taste test ourselves and placed a tiny bit on our tongues. The bile dissolved slowly in

Table 9.

Sampling of Bear Gall Prices in Taiwan Shops (June 1991).

Shop #/Location	Bear Gall Sold	Price	Stated Origin	Comments
1 / Taipei	No	N/A	N/A	Bear gall too expensive and Buddhist owners believe it's wrong to kill bears for medicine.
2 /Taipei	Yes	$20/gram	Not specified	1 partial jar of golden crystals and 1 full jar of reddish-brown crystals seen.
3 /Taipei	Yes	$25/gram	Not specified	Shopkeeper reluctant to talk. Said only that his bear gall was smuggled into Taiwan.
4 / Taipei	No	N/A	N/A	Shop owners said they did not wish to break the law.
5 / Taipei	Yes	$25/gram	Not specified	1 whole gallbladder seen.
6 / Taipei	Yes	Not given	Not specified	Shopkeeper reluctant to talk.
7 / Taipei	No	N/A	N/A	None.
8 / Taipei	Yes	Not given	Not specified	Shopkeeper reluctant to talk.
9 / Taipei	Yes	$28/gram	Not specified	2 whole gallbladders seen. Shopkeeper said Chinese galls are best. Usually sells as part of mixture.
10 / Taipei	Yes	$20/gram	Not specified	Shop owner said brown galls are best, followed by black bears. Malayan sun bear galls are "not so good."
11 / Taipei	Yes	$30/gram	Not specified	Owner said Himalayan black bear gallbladders are the best.
12 / Taipei	Yes	$13/gram	China	Most of his stock smuggled by individuals in lots of 10–20. Sells mainly for baby birth rite and in mixture.
13 / Taipei	Yes	$20/gram	Not specified	Owner sells about 10 bear galls annually. Some customers buy 2–3 at a time, but most in mix ture.

Table 9 (continued).

	Bear Gall			
Shop #/Location	Sold	Price	Stated Origin	Comments
14 / Taipei	Yes	$10–20/gram	Not specified	Price depends on color. Golden more expensive. Darker color is cheaper.
15 / Taipei	No	N/A	N/A	Owner had no bear gall in stock as store had just opened.
16 / Taipei	Yes	$20/gram	Hong Kong	Owner sells more than 100 per year. 3 whole galls seen, plus crystals. Asiatic black bear galls from Yunan Province on Main land best. He sells mainly for child's birth rite.
17 / Taipei	Yes	$21/gram	Not specified	Owner said his stock smuggled into Taiwan.
18 / Taipei	Yes		Not specified	Employee said shop sells only whole galls, but owner refused to elaborate.
19 / Taipei	Yes	$8/gram	Hong Kong, USA	Shop sells 1-2 kilogram of bear bile crystals annually. The best galls are from Alaska or northern China. Store's buyer asked if we were selling. Once bought from a Wisconsin seller.
20 / Taipei	Yes	$12–13/gram	India, Southeast Asia	Three galls were shown. Priced according to country of origin. Indian are of higher quality. This was a wholesale shop only. Owner said some customers buy 10 galls at a time.
21 / Taipei	Yes	$15–30/gram	China	Shop sometimes sells 150 grams per year. Jar of crystals shown. Supply smuggled by overseas Chinese or boss buys in Mainland China.
22 / Taipei	Yes	$3–22/gram	Borneo, Southeast Asia, China	Jar of crystals shown. Taiwanese prefer bile salts without the gall bladder sack. Galls from Borneo of lesser quality.

Table 9 (continued).

Shop #/Location	Bear Gall Sold	Price	Stated Origin	Comments
23 / Taipei	Yes	$18/gram	India	Jar of crystals shown plus 2 whole galls. Shop sells as many as 5 galls per day and up to 100 per year.
24 / Taipei	Yes	$16–19/gram	Cambodia, Thailand, Malaysia	3 whole galls and numerous empty gallbladder sacks shown plus 2 jars of crystals. Smuggled by overseas Chinese who come to university in Taiwan. Shop sells many galls to Japanese and some to South Koreans. Demand is increasing.
25 / Taipei	Yes	$9–13/gram	India, Burma	Shop buys 3–4 kilograms of bear gallbladder several times per year. Japanese sometimes buy 20 kilo grams at a time. Package of 12 galls shown.
26 / Taipei	Yes	$18/gram	Burma, Thailand, China	Owner complained of irregular supply. Many galls available in spring.
27 / Taipei	Yes	$15–16/gram	"Tropics"	Supplies are scarce. Bear gall usually sold in mixture.

our mouths with a fizzing sensation. The taste was overwhelmingly bitter, and the acrid aftertaste remained until we ate.

Many shops said they usually sold bear gall mixed with pearl, cow gallstones, musk, and amber. Reportedly, this is a powerful — and expensive — tonic for the liver, heart, lungs, stomach, and kidneys and is good for the skin as well. Sometimes rhino horn, gazelle horn, oxidized mercury (which is highly toxic when ingested), coral, dried palm, ginseng, dried insects, stalactites, and even gold are added for an even more powerful and expensive tonic.

All shops mentioned the use of pure bear bile in a birth rite for newborns. In fact, some shops said most of their gall sales were intended for this purpose. At birth, a fraction of a gram of bear bile is placed on an infant's tongue to "cleanse the blood" of poison passed by the mother to the child in the womb. Shopkeepers in Taipei medicine shops repeatedly stated that bear bile "kills germs" and "cleanses the blood."

People at three different shops mentioned that Japanese buy a lot of their bear gall. One apothecary said she had sold 20 whole galls to Japanese in the first five months of 1991. Another shop owner said Japanese sometimes buy bear gallbladders and cow gallstones 20 kilograms at a time.

Table 9 (continued).

Shop #/Location	Bear Gall Sold	Price	Stated Origin	Comments
28 / Taipei	Yes	$18/gram	"All over the world," including Alaska	Jar of crystals shown. Owner believes galls from USA are authentic because hunting bears is legal.
29 / Taipei	Yes	$16–20/gram	Worldwide	Shop once sold 100 kilograms of bear gall in a year's time.
30 / Taipei	Yes	$18–25/gram	Southeast Asia	Whole galls are less per gram than crystals. A tray of 25–30 whole galls shown, all said to be from Asiatic black bears in Southeast Asia.
31 / Taipei	Yes	$25/gram	China	Owners reluctant to talk. Said they sold 1–2 galls per year.
32 / Taipei	Yes	Not given	Thailand, India, China	Asiatic black bears yield the best medicine. Polar bears eat too much fish. Owner reluctant to talk.
33 / Taipei	Yes	$8–9/gram	Not specified	Owner very nervous about talking. He said he kept his galls away from the premises.
34 / Taipei	Yes	$25/gram	Not specified	Bear gall usually sold with other ingredients.

One shopkeeper claimed his bear galls are shipped in legally from India. Most others, however, admitted theirs were smuggled in. One man said his stock was smuggled from China by "individuals" who carried 10 to 20 pieces per trip. Another shop also said it depends on overseas Chinese to smuggle in supplies, except when the boss goes to Mainland China himself and smuggles galls home. Another shop said it simply waits for strangers to come peddling bear galls. Two shop owners said they buy from a distributor in Hong Kong, and one showed an invoice from a Hong Kong export company to prove he paid $12 per gram retail for the gallbladders he sells for $20 per gram. A woman shopkeeper stated that she sometimes buys from overseas Chinese who come to Taiwan from Southeast Asia to attend college and bring 10 or 20 galls back with them to Taiwan after every visit home. Another shop owner said he bought his stock from a Taiwanese broker who buys bear galls from around the world, including Alaska.

Some shops said they sold ten or fewer bear gallbladders each year, while others claimed to sell five to ten a day at times. One owner said he sells more than 100 galls per year. A buyer for another shop said he goes through one or two kilograms of bile crystals annually. Another owner said he buys three or four kilograms of bear gall several times a year to meet the demand. Yet another said once he sold 100 kilograms of bear galls in a year's time.

We asked five expensive Cantonese restaurants in Taipei whether they served bear paw. All said they no longer serve bear entrees, citing the law, a shortage of bears in the wild, or cruelty to animals as reasons. However, we are not convinced bear paw is not served in Taiwan restaurants and believe the matter deserves further investigation.

After shopping for bear parts, we asked Tang Hsiao-yu, chief of the Council of Agriculture Conservation Division, about the open sale of bear gallbladder in Taipei. He acted very surprised. "Not in Taipei," he said. "When?" He then referred us to the city government, as each city in Taiwan is responsible for enforcing the national Wildlife Conservation Law. The central government only wrote the law, he said. It has no hand in enforcing it.

At the Taipei City Government Department of Reconstruction, a five-department municipal team is charged with enforcing the Wildlife Conservation Law within Taipei city limits. This team is made up of members with expertise in city government, police work, education, zoos, and animal welfare. Their main job is to inspect pet shops to see if any illegal trade is being conducted. In addition, they are attempting to get owners of protected animals and their parts to voluntarily register their holdings. Since January 1991, 5,316 captive animals from 81 protected species have been added to the government's pet records, including one Asiatic black bear and six sun bears. The enforcement team is not looking at bear gall and other protected species' parts sold in Chinese medicine shops due to lack of staff resources and the problems associated with positively identifying these parts as authentic. Their priorities at this time are registration of live animals in captivity and an accounting of all ivory and rhino horn in the possession of Taipei citizens. Afterward, as of an as-yet-unspecified date, citizens caught with unregistered protected wildlife will be prosecuted (Y. Chang, pers. comm., June 1991). Chang Yuan, a member of the Taipei municipal team, said that stopping the sale of bear gallbladders is not part of enforcement efforts at this time.

THE BEAR TRADE IN THAILAND

BACKGROUND

Bear Biology

Both the sun bear and Asiatic black bear are native to Thailand. However, only 25 percent of the country remains forested (Collins et al. 1991), much of it in small islands surrounded by rubber and oil palm plantations or food crops.

Laws

Thailand became a CITES party in 1983. However, Thailand has not yet enacted legislation to implement CITES and does not submit an annual report regarding import, export, or reexport of CITES specimens (CITES Secretariat, 12 April 1991). Thailand's Wild Animals Reservation and Protection Act makes it unlawful in-country to hunt, buy, sell, or eat indigenous bears without government permission.

Law Enforcement

It appears as if wildlife law enforcement may be changing for the better in Thailand (see "Epilogue" in this chapter), though we would encourage long-term scrutiny before confirming such a trend. In early 1989, law enforcement was considered completely inadequate by one informed source (W. Brockelman, pers. comm., January 1989). At that time, there were only seven officers charged with enforcing wildlife laws in this kingdom of 54 million people spread over 513,115 square kilometers (A. Boonlerd, per. comm., January 1989). There also was an ongoing investigation into a case where CITES documents were forged by someone within the Royal Forest Department's Wildlife Conservation Division to allow caiman skins to pass through Thailand from South America en route to Japan (P. Pisit and A. Boonlerd, pers comm., January 1989). Boonlerd Angsirijinda, then chief of law enforcement, complained that wildlife traffickers had spies that somehow knew of and tipped them off about upcoming police raids. "We park and everything disappear," he told us. One conservation officer who had managed to nab a few wildlife traffickers in the act was told that her health would be in danger if she did not back down (Anon., pers. comm., January 1989). Corruption was widespread and well known. "

Even when wildlife protection laws are enforced today, violations carry a maximum fine of only $800 and two years in prison (*Bangkok Post,* July 1991), and actual fines are usually far less than the money to be made from wildlife trafficking (P. Pisit, pers. comm., January 1989).

Hunting

As Category II species under Thailand's Wild Animal Reservation and Protection Act, bears can only be hunted with permission from the Royal Forest Department. However, the average Thai's $170 annual per capita share of the GNP (*Asiaweek,* 26 April 1991) makes bear poaching a highly attractive temptation.

More than 20 percent of Thailand's villages are located in forest reserves (*Bangkok Post,* 25 February 1991). Poaching of both wildlife and wood is a continuing problem, and a number of government officials and influential people have been implicated in such illicit activities (*Bangkok Post,* 1982–1991). We talked with a researcher who witnessed hunters carrying a poached bear back to camp inside Thailand's Khao Yai National Park, home to nearly 60 poacher camps at the time (B. Dobias, pers. comm., January 1989).

Wildlife brokers set up poor villagers in remote areas with traps and all necessary equipment, some advance money, and a promise to buy any rare wildlife they come across (P. Pisit, pers. comm., January 1989). If a broker has a special order for a bear, he need only send out word through his poaching network. "Entire villages on the fringes of national parks survive on the poaching trade that feeds the wildlife restaurants of Asia," according to a newspaper story out of Bangkok (*Globe and Mail,* Toronto, 6 October 1990).

Bears as Medicine

As Buddhists, most Thais disdain the killing of bears for food and medicine (Mills 1991). However, 12 percent of Thailand's population is Chinese (U.S. Department of State, 1988), and bear gallbladders are sold in Chinese medicine stores in Thailand (Mills 1991; *Bangkok Post,* July 1991). We were told by Chinese medicine merchants in Hong Kong and Taiwan that Thailand is one source of their bear gallbladder supply (see Hong Kong and Taiwan chapters).

Bears as Food

Thais generally do not condone the eating of bears. In fact, Thais have been known to call authorities about restaurants that kill bears to order for foreigners (J. Dobias, pers. comm., January 1989). Tourists from Korea, Taiwan, and Hong Kong are known to take bear-eating tours to Thailand (Mills 1991; *Bangkok Post,* 3 July 1991).

In 1988, a wildlife restaurant in Korat, a city northeast of Bangkok, was buying bear meat for $3.20 per kilogram and selling it for $4 per kilogram (B. Dobias, pers. comm., January 1989).

Thai bears also have been exported for consumption abroad. For the 1988 Olympics, for instance, 30 Thai bears were illegally shipped to South Korea to fortify Korean athletes with their meat and galls (A. Boonlerd, pers. comm., January 1989).

Bears as Pets

Under the Wild Animal Reservation and Protection Act, every man, woman, and child in Thailand is allowed to keep as pets two of any wild species, with the exception of nine endangered ungulates (P. Pisit, pers. comm., January 1989). In fact, Thai Buddhists believe that taking in and caring for wild animals is a good deed that will earn them credit after death

(Mills 1991). It is not unusual to see caged or chained bears in people's homes; out front at restaurants, gas stations, and brothels; in department stores; and, once they are no longer wanted, taking refuge at monasteries (see "The Bear Market" in this chapter).

The law's allowance for pet keeping also presents a handy loophole for wildlife traffickers. According to Wildlife Fund Thailand General Secretary Pisit na Patalung (pers. comm., January 1989), anyone caught with more than two bears on hand need only claim the extras belong to a spouse, children, servants, brothers, sisters, etc., to escape prosecution.

In 1988, hunters were getting an estimated $120 for young live Asiatic black bears and $320 for adults (B. Dobias, pers. comm., January 1989). Young sun bears were bringing from $120 to $280. Wildlife dealers were selling these species for $950 and $900 each respectively in 1985.

THE BEAR MARKET

The following investigation and observations took place in 1989, before this project was initiated. Therefore, information in this section is not as complete as that for other countries.

We saw live bears in a department store zoo, at a crocodile farm for tourists, in a family home, and at a monastery that gives refuge to unwanted wild pets. To inquire about buying a live bear, we first went to Chatuchak Weekend Market in Bangkok. After asking at several tent stalls, we were referred to a woman at a juice stand. She said a sun bear cub would cost $400 and it would take two to three weeks to obtain one from Laos. She said she had an adult Asiatic black bear at another location and claimed that she and her sister sold about 200 bears a year.

We later called and visited Bangkok's *Suchino Corp. Ltd.*, which was listed in the Yellow Pages under "Animals: Brokers and Dealers." A 1985 price list for Suchino Corp. includes both sun bears and Asiatic black bears. Neither bear species was listed on the 1989 price list, but that was due to government pressure, according to a Suchino spokesman. He also said that, while illegal, buying bears was possible and, if desired, they could be shipped out of the country. "How many head do you want?" he asked. Sun bears would come from Laos, he said. The company sells 20 to 30 sun bears annually.

In Hat Yai, Thailand's second largest city, we met a couple who, with their teenage daughter, kept two Asiatic black bears, one an adult and one a cub, in their house. They had bought the adult as a cub from a restaurateur. They later bred this bear with another pet bear elsewhere in Thailand and kept the resulting cub. The bears were pampered house pets. While this was a novel sight, it illustrates a phenomenon that takes bears from the wild and, nearly always, sees them eventually sold for their parts. Thais buy cubs as pets and usually keep them a year or two, until the bears mature into strong adults with lethal claws. Eventually, the pet owners grow weary. About that time, a person will come along offering $100 or so to take the bear off their hands. Of course, the buyer doesn't mention to the Thai sellers that he is a broker for a Korean restaurant or Chinese medicine shop, which will sell their pet's paws, meat, and gallbladder. A buyer once even dared to offer $1,600 to Wildlife Fund Thailand for an unwanted pet sun bear it was holding until a home could be found (P. Pisit, pers. comm., January 1989).

In Bangkok's Chinatown, we readily found what were identified as bear gallbladders for sale. The first shopkeeper we asked pulled out a whole gallbladder from a concealed location. He wanted almost $10 per gram. It should be taken with liquor and is especially good for bruising, he said. Down the street, another shop had a gall openly displayed, priced at more than $6 per gram. A third shop had a whole gall priced at nearly $4 per gram.

We tried repeatedly to order bear paw at different restaurants around Bangkok without success. In fact, we even followed a busload of Korean tourists into Snake House, a restaurant in a residential district where informed sources said we would find bear entrees. However, we were told that there was "no bear" and were encouraged to leave.

Bears cooked to order became harder to find after December 1982, when a woman was arrested with 10 live bears on hand at her home, which doubled as a Korean restaurant (J. Dobias, pers. comm., January 1989). The bears apparently were clubbed to death (P. Pisit, pers. comm., January 1989), and the noise prompted a neighbor to complain to authorities (J. Dobias, pers. comm., January 1989). But rather than stopping the restaurant trade in bears, the scandal only sent it underground.

Finally, with the help of a Korean in Bangkok, we made the proper connections to eat bear. This Korean told us that Snake House was indeed the place to eat bear. She said bears were killed to order there by drowning, which is quieter that other methods. The price of a whole bear at that time was $2,000. Our source told us that the gall is taken out for later use as medicine, but the liver is eaten raw with spices, the blood drunk, and the meat grilled "Korean style." The paws are prepared, over several days, and made into another entree.

We then talked about bear-eating tours with Won Sun Ung, president of Thai-Han Travel Service in Bangkok. He confirmed that he arranges such tours for groups from Seoul. After he receives a request via telex, he needs about a month to order a bear and arrange all the details. He said one serving of bear paw would cost between $500 and $600. We suspect Won's prices were inflated either to discourage us or because we were Americans.

In the fall of 1990, the price of a single Asiatic black bear had reached $4,000 at some tourist restaurants in Thailand, according to a newspaper story by a Bangkok writer (*Globe and Mail*, Toronto, 6 October 1990).

Epilogue

On February 23, 1991, the senior commander of Thailand's armed forces announced that his troops had taken over the government in one of the country's periodic coups d'etat (*The Japan Times*, 24 February 1991). The new government cited "rampant corruption" as the main reason for the coup and made promises to clean it up (*Bangkok Post*, 25 February 1991). Then on 12 April 1991, the Standing Committee of CITES called on all 110 member states of the treaty to ban any trade in listed plants or animals with Thailand. "Thailand is a revolving door for illegal trade and its attitude compromises the efforts of other States towards protecting their wild fauna and flora," read a press release issued by the CITES Secretariat at the time. On 15 July 1991, the U.S. Department of the Interior published a notice in the *Federal Register* stating that "Thailand has become a hub of illegal smuggling activity for species of wildlife from throughout Southeast Asia" and made official U.S. intention to comply with the Standing Committee's request.

On July 2, 1991, 50 police officers led by the government's Crime Suppression Division, raided a farm in Samut Prakan Province just south of Bangkok (*Bangkok Post*, 3–7 July 1991; *The Nation*, 4–6 July 1991). They found four freshly slain bears and about 40 tourists, mostly Koreans, some dining on bear. They also found several living bears, including seven hidden at a nearby village, 48 bear paws in the refrigerator, and records of sales of bear gallbladders and bear paws. Seven people, including the Korean manager and workers from Taiwan, were arrested.

As the story unfolded, police revealed that this farm was also a restaurant and traditional medicine outlet and that it had been advertised in both South Korea and Taiwan. Since the farm's opening in May 1991, 16 tour companies had been bringing in groups of tourists from South Korea, Taiwan, and Hong Kong to eat protected species and buy medicine made from their parts. Chinese medicine shops were also tied to what was termed a "business network" associated with the farm. The farm was said to supply meat to Korean restaurants in Bangkok as well.

Police said most of the farm's bears were smuggled by trawler via the Gulf of Thailand from Cambodia, though some may also have come cross country from Burma. They were stored at various locations to avoid detection, then brought to the farm, which was kept under tight security, and killed to order. Bears were killed by drowning, strangulation, or being stabbed to death with a spear, but only after prodding with a metal pole to get their adrenalin and other medicinal juices flowing. A bowl of bear paw soup or stew was sold for $32 to $40, while a complete dinner ran $400. The farm's owner, brother of Thailand's former deputy commerce minister, claimed the farm was a zoo set up for tourists and to help save endangered animals from extinction.

The government widely publicized the arrests, including sending announcements to its embassies around the world (*Bangkok Post*, 5 July 1991). Thai authorities said they were considering not only stiffer penalties for those caught trafficking in protected wildlife but a ban on possession, import, and export of protected species. They also talked of a public relations campaign to inform tourists that eating wildlife in Thailand is against the law.

It is unclear whether this flurry of action to enforce wildlife laws in Thailand is a result of a new government or of pressure from the Standing Committee of CITES. In looking through issues of Bangkok's daily newspapers over the past 20 years, raids on wildlife dealers appear periodically. This one incident may or may not signal an improvement in wildlife law enforcement in Thailand.

EVIDENCE FROM OTHER COUNTRIES

We did not visit the following countries, but nonetheless gathered some information regarding the presence of the bear trade there.

BANGLADESH

The Asiatic black bear, sloth bear and perhaps the sun bear inhabit Bangladesh. Bangladesh became a CITES party in 1981. Bears are listed on the Third Schedule – Protected Species – of the Bangladesh Wild Life Preservation Act, 1974. However, the Asiatic black bear "is fast perishing," according to wildlife scientists there. In June 1991, six bear cubs were discovered aboard an outbound Korean ship in the port of Chittagong (K. Huda, M. Rahman, Q. Banu, and M. Sadiq, letter to IUCN/SSC dated 29 June 1991). Korea- and Singapore-flagged ships with Korean, Singaporean, Filipino, and Sri Lankan crews are known to smuggle wild animals from Chittagong through Singapore (K. Huda, M. Rahman, Q. Banu and M. Sadiq, letter to IUCN/SSC dated 29 June 1991).

BHUTAN

Bhutan is home to the Asiatic black bear and, possibly, sloth bears and brown bears. This small Himalayan kingdom wedged between China and India is not a CITES party. Hunting and trapping of all species was banned in forest reserves in Bhutan under the Bhutan Forest Act of 1969 (Nichols et al. 1991). Permits can be issued for hunting wild animals that damage crops, though permit holders are not allowed to eat the meat of any wildlife they kill (Nichols et al. 1991). Import or export of any forest product is illegal without proper permits (Nichols et al. 1991). However, poaching and trading of bears is allegedly conducted by Indian nationals, mainly poor Assam Indians, who cross the border to hunt. Poached bears and bear parts are sold on the black market in India. Most of the bear trade occurs in the more remote northern part of the country. Bear gallbladder is used to treat malaria and the meat is eaten for "energy." The meat also is traded as medicine. (Most of the above information was gathered from an interview conducted on 3

August 1990 with Bhutan foresters Gem Tshering and Karma Dhendup, who were in the United States for a training seminar.)

BURMA (MYANMAR)

The ranges of the sun bear and Asiatic black bear extend into Burma, which borders Laos, Thailand, China, and India. Burma is not a CITES party. All species are protected in reserve forests (Burma Wild Life Protection Act, 1936), but neither bear species was protected outside those forests as of 1988 (R. Salter, letter dated 8 August 1988). While there is no sport hunting of bears in Burma, bears are killed by local people on an opportunistic basis (Sayer 1983). "Certain parts" are used for medicine and hides are sold locally for "decorative purposes" (Sayer 1983). We received a report of "bear products" being sold as traditional medicine at roadside stalls in Burma (M. Woodford, letter dated August 1988). After a July 1991 raid on a farm in Thailand that sold bears and bear parts to tourists, a newspaper reported that some of the bears had come from Burma through the Thai border town of Mae Sot (*Bangkok Post*, 7 July 1991). Government travel restrictions and the fact that insurgents and opium traffickers occupy much of Burma's forests make assessment of the bear trade very difficult. What is known, however, is that at least 1.2 million acres of Burma's forests are being felled each year (*New York Times*, 9 December 1990), which undoubtedly reduces bear habitat and increases bears' vulnerability to uncontrolled hunting.

CAMBODIA

Cambodia borders Thailand, Laos, and Vietnam, and is home to both the sun bear and Asiatic black bear. Cambodia is not a CITES party. While civil war continues in Cambodia, there is "a vigorous informal economy," according to *The Economist* (1 December 1990). This informal economy apparently also includes bears, as Cambodia was cited by Thai police as the main source for bears found in July 1991 at a farm in Thailand that sold bears and bear parts to tourists (*Bangkok Post*, 7 July 1991). Most of the bears come via Koh Kong, an island in the Gulf of Thailand that lies off the coast where the borders of Cambodia and Thailand meet (*Bangkok Post*, 7 July 1991). The bears travel, sometimes four or five at a time, via Thai trawlers up the coast of Thailand to a port just south of Bangkok.

INDIA

The sloth bear, brown bear, and Asiatic black bear inhabit parts of India, but it is thought that the sun bear is now extinct there (A. Johnsingh, letter dated 1? Nov 1988). India became a party to CITES in 1976. Under the Wildlife Protection Act of 1972, the brown and sun bears are "totally protected," while the sloth and Asiatic black bears are "special game regulated." The first category prohibits hunting, except for dangerous animals. The latter allows limited hunting. No trade is allowed in either category (Nichols et al. 1991). Traditional medicine merchants in Hong Kong, Singapore, and Taiwan told us they bought bear gallbladders from India. Bear meat is used in Ayurvedic medicine, the traditional medicine of India (Dash 1984). An Indian swami we met in Nepal told us that hunters from forest villages sell bear galls to Ayurvedic physicians and to Hindu monks along the border region between India and Nepal (S. Dharmjyoti, pers. comm., February 1991). Between February 1981 and January 1988, 365 kilograms of bear gallbladders were exported illegally to Japan via Singapore (*Indian Express*, 18 April 1988). Indian nationals are suspected of crossing the border into Bhutan to poach bears to supply the black market in India with bears and bear parts (G. Tshering and K. Dhendup, pers. comm., August 1990).

INDONESIA

The sun bear lives on the Indonesian islands of Sumatra and in Kalimantan, the Indonesian portion of Borneo. Indonesia became a CITES party in 1979. Sun bears are completely protected from hunting, capture, trade, transit, export, and possession under the Wildlife Protection Ordinance of 1931 (Nichols et al. 1991). Deforestation and encroachment by human settlement and agriculture continue to diminish bear habitat. While bears are not hunted for meat in Sumatra, they are killed when they damage coconut and oil palm plantations (Santiapillai and Santiapillai 1988). Bears are also killed for their skins. The young are taken from the Sumatran forest alive and sold at local markets as pets for about $31 each (S. Siebert, letter dated 29 December 1990). In Kalimantan, the bear is eaten and its skin used in traditional dances by the Kelabit Dayaks (Santiapillai and Santiapillai 1988). Teeth and claws are sold as souvenirs (Santiapillai and Santiapillai 1988) or sewn onto infant backpacks by Dayak parents for good luck (N. Wirawan, pers. comm., August 1990). Some among the indigenous people of Sumatra say bear gallbladder makes humans strong, but claim it is only the Chinese who use it for such purposes (S. Siebert, letter dated 29 December 1990). Jakarta has long been known as an entrepot for the wildlife trade (Nichol 1987), and bears have been known to pass through Jakarta's airport (UNDP/FAO 1977). There also is a long-standing smuggling zone by sea between Indonesia's many islands and Singapore and Malaysia (Nichol 1987; I. Sharp, pers. comm., March 1991), which could easily provide transport for bears and bear parts bound for other Asian destinations.

KOREA (NORTH)

North Korea is part of the Asiatic black bear's historic range. North Korea is not a CITES party. Due to the closed-door policy of the communist regime now in power, almost nothing is known about the bear's current status. What is known is that North Korea has more than 20 years' experience with extracting bile from living bears (Bai 1986). Bear poaching specifically to feed the demand for gallbladders in North Korea and China has become a growing concern in the east and southeast of Siberia (T. De Meulenaer, letter dated 24 July 1991). North Koreans employed in the Siberian timber industry are known to hunt brown bears for their gallbladders, and reports of bear carcasses found in Siberian forests with their intestines cut out are on the increase (T. De Meulenaer, TRAFFIC Europe memo dated 13 May 1991). It is believed these galls are smuggled from the Soviet Union to North Korea by train (T. De Meulenaer, TRAFFIC Europe memo dated 13 May 1991).

SRI LANKA

Sri Lanka, an island nation off the southeastern tip of India, is home to the sloth bear. Sri Lanka acceded to CITES in 1979. The Fauna and Flora Protection Ordinance of Sri Lanka prohibits the hunting of sloth bears except by special license (S. Perera, letter dated 13 September 1990). Trade in bears and bear parts within Sri Lanka and export of bears and bear parts from Sri Lanka for commercial purposes are totally forbidden (S. Perera, letter dated 13 September 1990). Nonetheless, sloth bears are killed in Sri Lanka for their gallbladders and their fat, both for medicinal use (Santiapillai and Santiapillai 1989). Bear paws are exported illegally to China and Japan (Santiapillai and Santiapillai 1989). Bear cubs are sold as pets and to circuses, while bear claws are worn in Sri Lanka as protection from evil (Santiapillai and Santiapillai 1989). With a Sri Lankan deforestation rate of 582 square kilometers annually, the country's bear habitat is threatened as well (Collins et al. 1991; Santiapillai and Santiapillai 1989).

VIETNAM

The sun bear and Asiatic black bear inhabit Vietnam's forests, which are experiencing a deforestation rate of 3,110 square kilograms per year (Collins et al. 1991). Vietnam is not a CITES party. Bear is a menu item at a Chinese restaurant that caters to wealthy Chinese in Cholon, Ho Chi Minh City's (Saigon) Chinatown (K. Brown, pers. comm., August 1991).

CHAPTER FOURTEEN

SCOPE OF THE TRADE

The Asian trade in bear parts seems vastly under reported in CITES annual reports. Between 1980 and 1988, no Asian trade in bear gallbladders was reported as such (Table 10). Note that bear garade reported by Japan (Table 4) and Taiwan (Table 8) does not appear as CITES data. Items reported that could have been galls included six kilograms of "derivatives" exported from Japan to South Korea, 20 "specimens" from Canada to Japan, seven "unspecified" from the United States to South Korea, and 13 "bodies" to various destinations. Also of interest were 4,000 "derivatives" from Japan to the United States in one shipment, another shipment of 2,700 "derivatives" from Hong Kong to the United States, plus one "derivative" shipped from Japan to the Soviet Union – most of which presumably were prepared traditional medicines containing bear gall. The only other CITES-documented trade over a nine-year period pertinent to this report was the international exchange of 516 live bears, 247 of which were reported as captive-bred, and eight feet exported from Hong Kong to South Korea. Based on these tables, it is easy to see how conservation and law enforcement officials might think the Asian bear trade is inconsequential.

The long arm of the bear trade reaches to wherever there are bears. Therefore, our study of the Asian trade also led to the United States, Canada and the Soviet Union. At this time, however, the bears of Asia clearly are at greatest risk from commercial trade. Chinese medicine texts specify, in order of preference, the Asiatic black bear and Chinese brown bear as the best source of gallbladders. The next logical choices are those closest to home, meaning the Asiatic black bears, brown bears, sun bears, and sloth bears of nearby Asian countries. Blatant evidence of Asians coming to North America for bear galls did not catch the attention of U.S. law enforcement officials until the mid-1970s (J. Scrafford, pers. comm., July 1990). Presumably, increased demand for galls, a shortfall in the Asian supply, and the ease of obtaining galls in the United States and Canada prompted shopping so far afield.

Based on all we have seen and heard in the course of this investigation, we believe that the trade in Asian bears and bear parts is a threat

Table 10.

CITES Transactions in Sun Bears, Asiatic Black Bears, Brown Bears, and/or Their Parts Involving Asia, 1980–1988.*

Year	Captive-Bred Live Bears†	Live Bears	Bodies	Feet	Derivatives	Specimens	Not specified	Others
1980	1	25	0	0	0	0	0	0
1981	3	34	0	0	0	0	0	160 skins 2 trophies 1 skull 1 plate
1982	98	32	0	0	0	0	0	1 skin 3 teeth
1983	76	42	1	0	4,000 + 6 kg.	0	0	8 skins 7 trophies 1 skull 2 garments
1984	46	34	1	0	1	0	0	3 skins 6 trophies
1985	1	15	0	0	0	0	0	4 skins 3 trophies 5 skulls 6 bone products
1986	11	21	5	8	0	0	0	5 skins 3 trophies 1 garment
1987	8	55	3	0	0	0	0	8 skins 4 trophies 2 plates
1988	3	11	3	0	2,700	20	7	2 skins 4 trophies
Totals	**247**	**269**	**13**	**8**	**6,701 + 6 kg**	**20**	**7**	

* Involves exports from and imports into Bhutan, China, Hong Kong, India, Indonesia, Japan, North Korea, South Korea, Malaysia, Mongolia, Burma (Myanmar), Nepal, Philippines, Soviet Union, Taiwan, and Thailand. American black bear not reported as it was not listed under CITES until 1991. Sloth bear not listed long enough for trade to be recorded in these data.

† Specified as captive-bred on CITES reports.

Source: CITES annual reports.

equal to or greater than habitat destruction and human encroachment. In actuality,these three forces are working in concert to threaten the survival of Asian bear populations. The felling of forests and their replacement by plantations and villages could, by themselves, bring about the demise of whole bear populations. Commercialization hastens this process.

The bear trade's supply is more ubiquitous and its demand more zealous than we anticipated at the outset. We did not have to go very far or try very hard to find bears and/or bear parts for sale everywhere we went during the past 16 months, from our home in the western United States to the jungles of Borneo to the shopping malls of Singapore. We were able to order bear-based medicine over the telephone from New York and have it delivered to our doorstep by the U.S. Postal Service. In Asia, we saw what were said to be bear galls packed by the dozen in sealed plastic bags like mass-produced foodstuffs. One dealer told us he had sold 100 kilograms of bear galls in a year. More than a dozen times in several different countries, medicine merchants assumed we, as Americans, were selling bear galls. One merchant told us that Americans from Wisconsin had come to him while selling galls door-to-door in Taipei. If what we were told about the origin of the galls we saw was true, there is a worldwide network that sells gallbladders from bears in Southeast Asia, East Asia, the Soviet Union, and North America in traditional medicine shops throughout the capitals of Asia.

There are many gallbladders from pigs and other species being sold as bear galls, since visual distinction among species is impossible. We believe the large number of fake bear galls on the market indicates how far the demand for bear galls exceeds the supply. The situation in China illustrates this point. China itself has a huge internal demand for bear bile as medicine, and reportedly exports a great number of bear galls as well. These dual demands diminished the supply of galls from wild bears so much that the government of the People's Republic of China, in the mid-1980s, officially mandated the farming of bears in order to ensure a steady supply.

LIKELIHOOD OF ESCALATION

We believe there is a strong possibility that the bear trade will escalate in the future and, in doing so, put more bear populations at risk. We base this assumption on the current state of world politics, on Asia's growing affluence, and on the profitability of trafficking in bears and bear parts.

Countries that have been long isolated for political reasons are now opening their doors to former adversaries. A Japanese airline is now flying charter flights into the previously forbidden destination of Vladivostok (*Aviation Week & Space Technology*, 22 July 1991). Hong Kong will return to Chinese possession in 1997. Taiwan is initiating economic and trade relations with the Soviet Union and Vietnam (*Free China Journal*, 10 January 1991). China and Taiwan are talking about reunification (*China News*, 8 June 1991), while students in South Korea call for reunification with North Korea. A bridge is about to be built across the Mekong River, linking Thailand and Laos. Japanese, Hong Kong, Chinese and South Koreans are setting up joint ventures in China. South Korea and the Soviet Union have signed an agreement to allow regular flights between Seoul and Moscow (*Korea Times*, 30 May 1991). South Korea and Japan are harvesting large tracts of timber in eastern Siberia. New joint ventures are planned between Chinese medicine manufacturers and the Soviet Union for the supply of raw medicinal materials (V. Skulkin, pers. comm., August 1991).

Headlines like those above seem to be a daily occurrence in Asian newspapers. What is good news for people, however, may be bad news for bears. Between the lines, one could also read that more Japanese, Korean, and Taiwan residents may be buying bear galls in the Soviet Union; live bears may be smuggled more easily from Laos to Thailand; Hong Kong may soon be an official distribution point for farmed bear bile from China to the rest of the world; wealthy South Koreans may someday have access to whatever wild bears are left in North Korea; South Koreans and Japanese may have better access to eastern Siberia's prime bear habitat; Taiwan may already be importing bear galls from Vietnam; and the cash-starved Soviet Union may soon begin selling bear parts in record numbers to Chinese medicine makers.

In other words, the warming of world relations stands to open new markets for businessmen of all sorts, including those involved in the bear trade. Opened borders also mean ease of smuggling.

To complement these potential new supply lines will be increasingly wealthy consumers. South Korea's economy is growing at a rate of 8.6 percent; Singapore's by 8.3 percent; Taiwan's by 5.2 percent; Japan's by 4.9 percent; Hong Kong's by 2.3 percent (*Asiaweek*, 26 April 1991). Even China enjoys a 5 percent growth rate. (In contrast, the U.S. economic growth rate is .9 percent.) As the economic gap grows between rich consumer countries and poor supplying countries, there will be growing incentive for all parties to engage in the bear trade.

Finally, there is the matter of profit. At this writing, gold costs $11.53 per gram (New York Stock Exchange, 20 August 1991). We have priced bear gallbladder at 18 times that price. In South Korea, bear gall sells for as much as and sometimes more than Asia's China White heroin, which retails for $130 to $200 per gram (Drug Enforcement Administration, Denver, Colorado, August 1991). Prices alone put the bear trade in league with drug trafficking. In some cases, however, they are one and the same. "These people don't care what the product is as long as there's a profit involved," we were told by a U.S. Fish and Wildlife Service law enforcement agent. "Whether it's coke, machine guns or bear galls, it's irrelevant. We're finding more and more that the people we're taking down we're indicting for possession of machine guns, distribution of meth — it's just an organized criminal conspiracy, and bear gall's another quick, easy way to make money." (J. Scrafford, pers. comm., July 1990).

Certainly there are trade networks and/or syndicates that supply the market for bears and bear galls. We have no reason to believe they are all connected, but they are nonetheless well established. One law enforcement agent likened trafficking networks to spider webs in a garage — there may be hundreds of intricate webs but none of their makers knows one another (A. O'Hara, pers. comm., 15 November 1990).

One need only compare this report to a synopsis of the drug trade to see striking parallels between the two (Posner 1988). What follows is an excerpt from a report on the drug trade in Laos, with "bears" substituted for every reference to "drugs": "The increase in trafficking of *bears* in this country can be attributed in large part to the lure of relatively high profits for one of the world's poorest countries. . . *Bears* are smuggled across to Thailand. . . There is no other crop which provides the peasant farmer as much return for his labor." In many cases, the smuggling routes, the techniques, and the players are markedly similar, from the jungle on up the smuggler's chain to the streets of Hong Kong (Domalain 1977; Posner 1988). The drug trade also offers a blueprint for how difficult it will be to stop or even slow the bear trade. In some ways, drug enforcement is easier. At least China White can be easily distinguished from baking powder by a taste test. To date, a painstaking laboratory analysis is required to distinguish, beyond a legal doubt, a bear gall from a pig gall, and an even more complicated DNA test is needed to type a bear gall to a protected versus an unprotected bear species (S. Fain, pers. comm., August 1991).

CHAPTER FIFTEEN

TRADE CONTROLS

What we saw and heard in terms of law enforcement was discouraging at best. Before visiting each of the 11 countries on our itinerary, we wrote to officials of those countries to ask about the status of the bear trade. Almost invariably conservation and law enforcement authorities told us the trade was either nonexistent or of little consequence. Once on the ground, we often found a flourishing trade, some of it conducted within blocks of enforcement authorities offices. These authorities were most hospitable and admitted that they do very little, if anything, to police the trade in bears and bear parts. In short, the bear trade is not a priority for most of the officials we spoke with in Asia. Rhino horn and ivory were usually cited at the top of the list of law enforcement tasks, sometimes followed by endangered cats and reptiles, but rarely was the trade in bears of much interest.

CITES

Several Asian officials complained that enforcing laws that prohibit the bear parts trade is impossible given the difficulty in distinguishing galls of protected bears from galls of either unprotected bears or other species, such as pigs and cows. Some even said distinguishing paws of certain bear species was beyond their capabilities. In this way, the absence of CITES protection for certain bear populations leaves a legal loophole large enough to allow trade in places like Hong Kong and Singapore to go on virtually unabated. The result is de facto laundering. If someone is caught selling a bear gall or paw, vindication is as easy as saying the contraband is from aSoviet brown bear, which is not protected by CITES. As a consequence, authorities in some countries do not even try to catch anyone in the act.

CITES exemptions for reporting trade in captive-bred bears or their parts also leave open opportunities for laundering. Bear parks and bear farms are ideal places to pass off wild bears and their parts as those from captive stock and, therefore, legal merchandise. No one can tell the difference between wild and captive-bred bears or their parts and only minimal records, if any, are required to document births and deaths among captive stock. Even if these facilities trade strictly in captive-bred animals, they continue to feed and encourage the commercial market for wild bears and bear parts and complicate law enforcement efforts to stop the trade.

The Asian trade in bears and bear parts is underreported in CITES annual reports (see chapter on "Scope of the Trade"). It is well known that some CITES signatories do not even submit annual reports to the CITES Secretariat. Others most certainly underreport trade, as many base their data on those obtained from CITES permits and smugglers don't usually obtain CITES permits. The limited use of CITES permits was well illustrated by the fact that most CITES management authorities we met pleaded ignorance of any bear trade while we saw scores of bear galls for sale within their jurisdictions. Nowhere in existing CITES records worldwide are there import, export or reexport data that would account for all the galls we have seen.

An overview of the laws in Asia (Table 11), shows that only three of the five major bear-consumer countries are CITES parties. The two nonmembers, South Korea and Taiwan, are among the biggest players in the bear trade: Of 13 supplying countries sampled, eight have signed CITES. Thailand, a CITES party, shares a border with Laos, a nonparty. Wildlife that is protected in Thailand has for years been smuggled into Laos and come back out as Laotian wildlife not protected by CITES, to be sold in Thailand and elsewhere. Only in Japan is in-country trade in bears virtually unregulated, yet we have documented evidence of internal trade in all of the 18 countries sampled.

DOMESTIC LEGISLATION

Then there is the matter of trade laws in-country. In some cases, such as China, provincial laws may differ in strength and scope. In other countries, such as Laos, the tenacity of law enforcement differs across provincial lines.

The United States and Canada are also supplying countries for the Asian trade in bears and bear parts, as illustrated by a number of recent law enforcement operations. But here, too, there are inconsistencies in domestic legislation that continue to hinder and sometimes cripple law enforcement officials. For example, a man recently ran a want ad for bear gallbladders in a New Mexico newspaper (D. Marshall, pers. comm., August 1991). U.S. Fish and Wildlife law enforcement agents called the telephone number in the ad and talked with a man who said he would pay well for all the bear galls they could provide. The agents looked into following up with an undercover operation, then dropped the idea once they realized that New Mexico only had laws against selling bear meat. "This is a common situation," U.S. Fish and Wildlife Service Special Agent Dan Marshall told us. "The laws date to a time when galls weren't a problem. They are basically archaic under today's circumstances." Colorado recently updated its laws to cover trafficking in bear parts, giving law enforcement agents "a tool we can use," Marshall said. "But in other states, we're powerless."

While the United States implemented CITES in 1975, there is no federal prohibition of trafficking in bear parts within the U.S. The federal Lacey Act only comes into play when there is a violation of underlying state conservation laws (D. Marshall, pers. comm., August 1991). Of the 36 states with bear populations we surveyed, 28 prohibit the trade in gallbladders from their own bears (Table 12). Some states, such as Connecticut, prohibit the sale of parts from their own bears but not the sale of parts from bears taken legally in other states (P. Rego, pers. comm., August 1991) (Table 13). As a result of this legal patchwork, law enforcement personnel told us, bear parts are laundered through neighboring states. For instance, the sale of bear parts is illegal in Montana but legal in its neighboring states of Idaho and Wyoming. Someone who wished to sell bear galls from Montana need only drive a few hours or less and cross the Idaho state line, where there are no

Table 11.

Asian Laws Regarding Bears within Country.

Country	CITES Party	Trade in Bears Restricted or Regulated	Known Trade in Bears
Bangladesh	Yes	Yes	Yes
Bhutan	No	Yes	Yes
Burma (Myanmar)	No	Yes	Yes
Cambodia	No	?	Yes
China	Yes	Yes	Yes
Hong Kong*	Yes	Yes	Yes
India	Yes	Yes	Yes
Indonesia	Yes	Yes	Yes
Japan*	Yes	No	Yes
Korea (South)*	No	Yes	Yes
Laos	No	Yes	Yes
Malaysia	Yes	Yes	Yes
Nepal	Yes	Yes	Yes
Singapore*	Yes	Yes	Yes
Sri Lanka	Yes	Yes	Yes
Taiwan*	No	Yes	Yes
Thailand	Yes	Yes	Yes
Vietnam	No	?	Yes

? = insufficient information

* = major consumer country
(Note: All others are mainly supplying countries, except China and Japan, which are both major consumers and suppliers.)

Source: Based on David G. Nichols, Jr., et al., *Wildlife Trade Laws of Asia and Oceania* (Washington, D.C.: World Wildlife Fund, 1991), communication with in-country officials, and/or personal observations

Table 12.

State Laws in the United States regarding Bear Trade in States with Bear Populations.

State	Bear Hunt	Sale of Bear Parts Taken through Sport Hunting	Known Trade in Bears / Bear Parts	Prosecutions for Illicit Trade in Bears / Bear Parts*
Alaska	Yes	Illegal	Yes	Yes
Arizona	Yes	Illegal	Yes	Yes
Arkansas	Yes	Illegal	No	No
California	Yes	Illegal	Yes	Yes
Colorado	Yes	Illegal	Yes	Yes
Connecticut	No	Illegal	No	No
Florida	Yes	Illegal	Yes	Yes
Georgia	Yes	Illegal	Yes	Yes
Idaho	Yes	Legal	Yes	No
Kentucky	No	Illegal	No	No
Louisiana	No	Illegal	No	No
Maine	Yes	Legal	Yes	Yes
Massachusetts	Yes	Illegal	Yes	Yes
Michigan	Yes	Illegal	Yes	Yes
Minnesota	Yes	Illegal	Yes	Yes
Missouri	No	Illegal	No	No
Montana	Yes	Illegal	Yes	Yes
Nevada	No	Illegal	Yes	Yes
New Hampshire	Yes	Legal	No	No
New Jersey	No	Illegal	Yes	Yes
New Mexico	Yes	Illegal	Yes	Yes
New York	Yes	Legal	No	No
North Carolina	Yes	Illegal	Yes	Yes
Oregon	Yes	Illegal	Yes	Yes
Pennsylvania	Yes	Illegal	Yes	Yes
South Carolina	Yes	Illegal	No	No

Table 12 (continued).

State	Bear Hunt	Sale of Bear Parts Taken through Sport Hunting	Known Trade in Bears / Bear Parts	Prosecutions for Illicit Trade in Bears / Bear Parts*
South Dakota	No	Illegal	No	No
Tennessee	Yes	Illegal	Yes	Yes
Texas	No	Illegal	No	No
Utah	Yes	Illegal	Yes	Yes
Vermont	Yes	Legal	Yes	No
Virginia	Yes	Legal	Yes	Yes
Washington	Yes	Illegal	Yes	Yes
West Virginia	Yes	Legal	Yes	No
Wisconsin	Yes	Illegal	Yes	Yes
Wyoming	Yes	Legal	No	No

* Some prosecution conducted federally under the Lacey Act.

Summary:

— 36 states surveyed.
— 28 states have bear hunts.
— 28 states prohibit trade in bear parts.
— 8 states allow trade in bear parts.
— 25 states report known trade in bear parts.
— 22 states have prosecuted cases of illicit trade in bear parts.

Source: Based on informal survey by authors.

border checkpoints, declare his galls from Idaho and conduct business legally. Unless that person is caught transporting those galls across state lines, he generally cannot be prosecuted.

Similar inconsistencies exist in Canada, which acceded to CITES in 1975 and listed the American black bear as CITES Appendix III in 1991 (Table 14). Of the 11 provinces and territories that have bears, six permit the sale of bear parts and five do not. Of the 11 with laws governing the bear trade, only one maintains export records. Once again, laundering occurs between jurisdictions (R. Wenting, pers. comm., August 1991). There also is evidence that it is quite easy to transport bear parts across the U.S.-Canadian border for purposes of laundering (R. Wenting, pers. comm., August 1991).

Table 13.

A Sampling of the Legal Status of the Sale of Black Bear Parts in the United States.

Alabama	Bears fully protected. Only finished products can be sold. No raw or green parts, regardless of organ, can be sold. No season.
Alaska	It is illegal to sell any part of a black bear in Alaska. The only exception is that a specimen that was abandoned at a taxidermist shop may be sold by the taxidermist if a permit is obtained from the state authorizing the sale.
Arizona	If bear is legally taken, it is legal to sell the hide/claws/skull. The sale of meat is prohibited. They say that the sale of internal organs is unlawful, but law or regulations not seen.
Arkansas	Does have a season in certain areas. Finished products of bear parts can be sold. Raw parts cannot be sold. Bear parts from other states, if written verification showing that bear was properly taken is provided, can be sold.
California	No sale of any black bear parts or products. It is a felony to do so.
Colorado	Illegal to sell any edible portions (galls, paws, meat). Legal to sell hides, claws, etc.
Connecticut	It is legal if the black bear was legally taken and if the state in which it was killed allows the sale.
Delaware	Wide open—bear live, dead, and parts can be imported for commercial activities into the state.
Florida	Code 39-12.004(8) states: ". . . The sale or purchase of any black bear or any part thereof is prohibited."
Georgia	It is illegal to commercialize in black bears. It is illegal to sell black bears or any of their parts in Georgia, Tennessee, or Kentucky.
Hawaii	It is illegal to sell all parts.
Idaho	It is legal to sell (all) parts of lawfully taken bear.
Illinois	Legal to sell — black bear not covered by Wildlife code.
Indiana	Legal to sell black bear parts in Indiana.
Iowa	Not protected anymore – can sell any part legally obtained.
Kansas	Legal to sell any legally taken bear or bear parts.
Kentucky	It is illegal to commercialize in black bears. It is illegal to sell black bears or any of their parts in Georgia, Tennessee, or Kentucky.
Louisiana	No commercialization of any type of black bear. A proposal to list the Louisiana black bear as a "threatened species" under the endangered species act was recently published in the *Federal Register*. A decision should have been forthcoming in June 1991.

Table 13 (continued).

Maine	Black bear parts (other than meat) can be sold by individuals with a state license. Black bear meat is illegal.
Maryland	MD DNR laws and regulations, section 10404. This section prohibits the sale of black bear and its parts.
Massachusetts	It is illegal to sell black bear parts, except the hide of a black bear legally taken outside of Massachusetts that is properly tagged.
Michigan	Legal to sell hide; illegal to sell internal organs, teeth, claws, flesh, and bones.
Minnesota	Basically prohibited – exception can sell hides, claws, and teeth of lawfully taken bears.
Mississippi	Bears fully protected. Only finished products can be sold and must have proper documentation. No raw or green parts, regardless of origin, can be sold. No season.
Montana	Legal to sell hide, head, mounts, and claws. All else illegal.
Nebraska	Legal to sell any bear or bear parts. Can't possess or sell live bears.
Nevada	It is legal to sell (all) parts of lawfully taken bear.
New Hampshire	It is legal to sell anything, except live or illegally taken or parts thereof.
New Jersey	The state of NJ does have a small resident black bear population; however, it is illegal to hunt, take, or kill a black bear within the state (N.J.A.C. 7:25-5.6 and N.J.S.A. 23:4-1). The sale of any game animal, within NJ, whether or not the game animal was lawfully taken and removed from another state, is prohibited by N.J.S.A. 23:4-28.
New Mexico	If the bear is lawfully taken, it is legal to sell the hide and parts (claws/skull/etc.). Meat may not be sold. State regulations do not address internal organs. Sale of galls would probably be legal.
New York	It is legal in NY to sell black bear parts as long as these parts do not contain any flesh of the bear. Parts such as the claws, hide, teeth, and gallbladder are legal for sale at this time. However, the state is attempting to have the law changed to make the sale of any part of product of the black bear illegal. The applicable section of the NY State Fish and Wildlife law that is Article 11, title 9, sub 17 par 9 sub a.
North and South Carolina	Illegal to sell black bear parts in NC and SC.
North Dakota	Legal to sell all bears and bear parts as long as legally taken.
Ohio	It is legal to sell lawfully acquired hides, teeth, hair, and claws.
Oklahoma	No part may be sold, even if lawfully taken.

Table 13 (continued).

Oregon	Strictly prohibited — sale of all parts.
Pennsylvania	The state has a large resident black bear population and permits licensed sport hunting of them. The sale of edible portions of legally taken game animals is prohibited by PA State Law. Black bear gallbladders are considered an edible portion of the bear by PA; therefore, their sale is prohibited. However, the hide and claws can apparently be sold.
Rhode Island	It is legal. No state law against it.
South Dakota	The bear is listed as threatened and therefore can't sell any bears or parts. Unless domestic (2 generations removed from the wild). There are many loopholes in the state laws.
Tennessee	It is illegal to commercialize in black bears. It is illegal to sell black bears or any of their parts in Georgia, Tennessee, or Kentucky.
Texas	State endangered species. Totally protected. No part may be sold.
Utah	Illegal to sell any bear or bear parts.
Vermont	Sale of black bear parts in Vermont is essentially unregulated. Title 10, Vermont Statutes annotated, section 4783 reads: (A) A person shall not buy or sell big game or the meat of big game within the state except during the open season and for 20 days thereafter. (B) Not withstanding subsection (A), A person may buy or sell at any time: 1) the head, hide, and hoofs of deer or moose legally taken; or 2) the head, hide, paws, and internal organs of black bear legally taken. (C) (Not applicable) The meat of big game animals shall not be bought or sold for the purpose of being transported out of the state.
Virginia	The VA Game and Inland Fish Boat Laws and Regulations, Section 29.1-536–Bear, may be bought and sold during the open hunting season only. Under state definitions, the bear is not a fur bearer.
Washington	Sale of all parts prohibited.
West Virginia	Laws, DNR, WV, Chapter 20, Section 2-11. The hide, head, skull, organs, and feet if legally taken may be sold.
Wisconsin	Legal to sell hides with head, claws, and feet attached; illegal to sell meat, parts, and whole carcass. Sellers and buyers need current bear hunting license.
Wyoming	Legal to sell everything except meat. Okay to sell galls, hide, claws, and mounts.

Source: U.S. Fish and Wildlife Service, Division of Law Enforcement, 1991.

Table 14 .

Overview of Provincial/Territorial Requirements in Canada Regarding Sale and Export of Parts of Black Bear.

Jurisdiction	Sale Permitted	Permit Required	Maintenance of Export Reports
Northwest Territories	Yes	Yes	No
Yukon	No	Yes	No
British Columbia	Yes	Yes	No
Alberta	No	Yes	No
Saskatchewan	Yes	Yes	No
Manitoba	Yes	Yes	No
Ontario	No	Yes	No
Quebec	Yes	No	No
New Brunswick	No	No	No
Nova Scotia	Yes	No	Yes
Prince Edward Island	—	—	—
Newfoundland	No	Yes	No

— = bear extirpated

Source: Based on informal survey by authors.

CHAPTER SIXTEEN

SUBSTITUTIONS

At this project's beginning, we were very hopeful about substitutions for bear gall as a means to ease the pressure on wild bear populations. As we looked further, we became less assured. Traditional medicine specialists say certain herbs in the "heat clearing" category, such as ***zhi mu*** or ***Anemarrhena asphodeloides*** (no common name) and ***zhi zi*** or *Gardenia jasminoides* (gardenia), are substitutions for bear gall (N. Wang, pers. comm., July 1990). Others say that, in higher doses, the gallbladders of pigs, cows, and wild boar are prescribed instead of bear gall (Bensky and Gamble 1986; Mills, in prep.). However, these substitutions were clearly inferior in the minds of most doctors and apothecaries we interviewed. The most promising substitutions for gallbladders from wild bears boiled down to the two with the same chemical composition: synthetic bear bile and bile extracted from living bears. Unfortunately, neither choice is acceptable to many devotees of the real thing (Mills, in prep.). In addition, milking live bears of their bile carries ethical and humane considerations that put its desirability in question to some people.

The medicinal properties of bear gall are real and proven by science (Achord 1990; Leuschner 1990). Ursodeoxycholic acid (UDCA) is the active ingredient in bear bile (A. MacDonald, pers. comm., July 1990). Only bears produce this bile acid in significant quantities (MacDonald and Williams 1985). Cross referencing UDCA with "bear bile" in the computer database known as MEDLINE, 711 citations come up on the screen. Synthesized UDCA, made from cow bile, is widely used and respected in the biomedicine pharmacopoeia. In the United States, it probably is best known by the trade name "Actigall," which is manufactured by Summit Pharmaceuticals of New Jersey and is used to dissolve gall stones, eliminating the need for surgery. Actigall's prescribing information even mentions that UDCA is "a naturally-occurring bile acid found in small quantities in normal human bile and in larger quantities in the biles of certain species of bears."

Japanese scientists isolated UDCA from bear bile in 1927 (M. Sano, letter dated August 1990). By 1955, they had succeeded in chemically synthesizing UDCA from cow bile. In

1957, Tokyo Tanabe Co., Ltd. began marketing synthesized UDCA under the trade name "Urso," for the treatment of diseases of the liver and digestive tract. Through the work of European and Japanese scientists, synthesized UDCA was shown in the 1970s to be the safest bile acid for the dissolution of gallstones.

While in Japan, we visited Tokyo Tanabe to discuss the marketing of Urso as a popular substitution for bear gallbladders. We met with company executives Tanaka Norio, Masakazu Sano, and Satoshi Nishigaki. Their company is the largest producer of UDCA in the world and holds licenses in China, Taiwan, South Korea, and the United States.

Tokyo Tanabe scientists have documented that black bears have higher concentrations of UDCA than brown bears and are, therefore, "more precious." They have also documented that bear gallbladders contain more medicine (UDCA) in the fall, probably due to increased digestive activity prior to hibernation. Bear bile is more golden in the fall, when it has higher concentrations of UDCA, and darker when concentrations are lower after hibernation. Research now is proving synthesized UDCA's promise in promoting fish growth for aquaculture and for improving fat digestion in humans.

Synthetic UDCA is popular as an over-the-counter liver tonic and for hangover prevention in both South Korea and Japan, according to Tokyo Tanabe officials, because approximately half of Korean and Japanese people do not metabolize alcohol well. Urso is 98.5 percent UDCA. Small white tablets of 100 milligrams each sell for about 16 cents each. Tokyo Tanabe sells 12 tons of Urso each year to South Korea, its best customer ahead of No. 2 Japan. South Koreans consume a total of 40 tons of synthetic UDCA annually, making it the most popular drug in that country. It is so popular that a Korean manufacturer of synthetic UDCA, one of Tokyo Tanabe's competitors, changed its name to Big Bear.

Synthesized UDCA is pure and cheap. Those two facts make up its downfall. Because it is concentrated and a synthetic, it is a "Western medicine," according to many Chinese medicine specialists we talked with. The beauty of natural medicines, like bear bile, is that they are diluted and buffered. In terms of cost, human nature in both the East and West places greater value on objects that are harder to obtain. "Synthesized UDCA is so cheap that people in Korea and Japan do not believe it is as effective" as bear gall, a Tokyo Tanabe official told us. Because of these attitudes, we do not believe synthesized UDCA will satisfy the demand for gallbladders from wild bears any more than cubic zirconium will satisfy the demand for diamonds.

Real bile extracted from living bears is disparaged for similar reasons, though it is the most viable substitution we found. One medicine dealer in Taiwan told us he did not believe that bile could be milked from living bears. In Korea, traditional doctors said bile from farmed bears could not help but be inferior to that of bears that ran free in the forests eating natural foods (Mills, in prep.). For some, certainly, the lesser price of farmed bile makes it seem inferior.

There may, however, be some basis in fact for this stigma of inferiority. Scientists in China told us that farmed bile is chemically "almost" as good as that from wild bears (J. Li, pers. comm., April 1991). A chemical analysis of bile milked from an Asiatic black bear and a brown bear at a Chinese zoo showed UDCA levels at 6.61 percent and 11.78 percent, respectively (Jin and Jin 1988). Bile taken from wild bears contains as much as 32 percent UDCA (MacDonald and Williams 1985). Factors such as age and diet may determine bile content (A. MacDonald, pers. comm., July 1990), so it is debatable whether farmed bears could ever match the UDCA content of wild bears. Further comparative analysis will be necessary to do more than speculate on the medicinal value of one versus the other.

Both the acceptability and efficacy of farmed bear bile must be examined more closely before it is embraced as an antidote to the bear gall trade. Ethical and humane considerations enter the equation as well. The bears we have seen at bile-extraction farms in China and South Korea live under a great deal of stress. Their cages are too small to allow for proper exercise and they exhibit many dysfunctional behaviors. Those bears involved in the extraction process express extreme agitation during milking.

China has a state-mandated goal of one day having 40,000 bile-producing bears in captivity, according to statements made at a recent bear conference in Harbin, China (Anon., pers. comm., August 1991). North Korea has been farming bears for their bile for more than 20 years, and bear farmers in South Korea are talking of starting up bile-milking operations all over the country. At least one bear park in Japan also wishes to begin extracting bile from its bears (Anon., pers. comm., September 1991). In other words, bears could become domestic stock not unlike dairy cattle.

Many people in China told us they felt that taking bile from living bears had taken pressure off China's wild bear populations. At the same time, we saw that the black market for bears and bear parts continues to operate. We would recommend further study to measure how effective bear farming has been in slowing the illicit bear trade. We suspect that farmed bile may only supplement the black market trade and make bear bile affordable and accessible to greater numbers of people. In this way, bile farming will only boost demand and buttress the concept of commercialization of bears — both farmed and wild.

At best, substitutions are only part of the answer to the question of how to curtail the trade in bear galls. There will always be people who will settle for nothing less than the real thing and who have the money to pay for it, whatever the price.

CHAPTER SEVENTEEN

RECOMMENDATIONS

RESEARCH

We recommend further research on four fronts: forensics, medicinal, attitudinal, and ecological.

In terms of forensics, we believe there will have to be more operations like the one being conducted now in Hong Kong, where what are purported to be bear galls are being purchased and sent to a lab for positive identification. This is the only way that anyone will ever be able to make a definitive statement about the scope of the bear gall trade.

We recommend refinement of laboratory methods for differentiating the gallbladders of the eight bear species so that, for instance, the gall from a CITES-listed Asiatic black bear could no longer be passed off as the gall of a non-CITES U.S. American black bear.

We also recommend, if possible, the creation of a chemical field test that would allow law enforcement officials to at least preliminarily identify bear galls or bear bile crystals on the spot. There have been arrests made in the United States that netted nothing but pig galls (E. Espinoza, pers. comm., January 1991). The look-alike problem between the galls of bears and other domestic animals not only wastes the valuable time and money of understaffed law enforcement agencies, it also prevents many from even trying to police the bear gall trade.

More research on the medicinal properties of bear gall should be conducted, but not just on farmed bears. It is important to know how much UDCA each species of bear produces at different ages and at different times of the year. With solid baseline data on UDCA production, consumers might be convinced that bear gall is a very inconsistent and unreliable medicine for its exorbitant price.

Clinical trials on the efficacy of bear gall versus substitutions like synthetic UDCA in treating certain diseases might also be of benefit. Results may indicate that bear gall is not a remedy for many of the ills for which it is prescribed. Of course, findings may say the opposite, in which case the demand for bear gall might escalate. But, that already appears to be happening.

Examining the attitudes of different Asian people toward bears is important as well.

No campaign to slow or stop the bear trade will ever succeed without understanding Asian attitudes, which clearly differ from those in the West. Therefore, further research should be conducted to document Asian belief systems as they relate to the use of bears and bear parts.

Last, but most important where research is concerned, is the need for basic research on the ecology of Asian bear species. To date, little definitive information is known about the status, habits, or requirements of the Asiatic black bear, sun bear, and brown bear in East and Southeast Asia. They may already be decimated to the brink of extinction in many areas. It is impossible to begin to address the impacts of trade or habitat destruction on Asian bears without researching them in the wild. Such research is critically important in places where timber harvest is rapidly converting primary forest to secondary forest or agriculture.

LAWS

Both CITES and domestic laws should be strengthened to take into account the pervasiveness of the bear trade. Legal loopholes should be eliminated.

Listing all Ursidae under Appendix I or Appendix II of CITES is pivotal. This is the only way in which the look-alike problem in the gallbladder trade will ever be eliminated. Such a listing would allow authorities throughout Asia to enforce CITES protection of bears. It is also critical that no CITES party enter *reservations* on bear listings, an action that could allow the trade to continue.

CITES provisions that allow exemptions for trade in captive-bred bears and/or their parts should be tightened and strictly enforced.

As much as possible, laws governing the bear trade should be made uniform among countries and among different governmental jurisdictions within countries. This effort would include encouraging South Korea and other key countries to sign CITES. It would also include encouraging U.S. states and Canadian provinces to uniformly prohibit the sale of certain bear parts, principally gallbladders.

Of course, in some cases, putting laws on the books serves as a convenient excuse to do nothing about the real problem. Before, after, and while laws are being strengthened and coordinated to take into account the bear trade, special attention should be paid to law *enforcement.* This might include seminars for police, conservation officials, and customs agents around the world to acquaint them with the intricacies of the bear trade. An international conference on the bear trade would give those involved a chance to compare notes, to better understand the scope of the problem, and, perhaps, to forge cooperative agreements to fight it.

We also recommend stricter monitoring and reporting standards for CITES signatories.

A worldwide ban on the sale of certain bear parts should be considered, at least as an interim step while longer-range trade-management measures are instituted.

EDUCATION

Education is perhaps the most potent weapon that can be used to combat the illegal bear trade. We suggest education targeted at both consumers and suppliers — at the wealthy bear gall user in Seoul and the poor bear poacher in the jungles of Laos. But we also recommend a more widespread public awareness campaign about bears and the bear trade in key Asian countries.

Educational efforts should promote the value of bears as wild animals and important members of the world's ecological community. Emphasis should also be placed on the myths of bear gall's efficacy. An associate in Taiwan told us he felt people there would respond to a message that links conservation and medicinal facts (Y. Wang, pers. com., June 1991).

We would caution that any sort of education program should be custom designed to suit the uniqueness of the different Asian cultures involved. What might work in Taiwan would probably not work in China, and a message that might reach Thais will not reach most Koreans. It is essential to work closely with nationals of each country so that the message of bear conservation comes from Asian mouths rather than from those of Western outsiders.

In addition, we encourage the education of government and law enforcement officials around the globe, for we feel many of them misunderstand, vastly underestimate, and even ignore the bear trade.

A LAST WORD

The instance of liver cancer in some parts of Asia is 35 times that of the United States (*Korea Herald*, 28 May 1991). Above all other indications, bear gall is used to treat serious liver disease. The popularity of Chinese and other traditional Asian medicines is growing in many countries. Bear gall is one of the most revered medicines in the Oriental pharmacopoeia.

The consumer countries in the bear trade are getting richer, while the supplying countries are increasingly starved for cash. Supply and demand for bears and their parts promise only to grow. Unless people find a way to make bears worth more alive than dead, worth more in the wild than in captivity or in pieces, entire populations may not survive to the turn of the century.

The next 10 years will be critical to the fate of many bear populations in Asia.

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COMPARATIVE PRICE RANGES FOR BEARS AND BEAR PARTS IN 11 ASIAN COUNTRIES

Comparative Price Ranges for Bears and Bear Parts in 11 Asian Countries.

Country	Whole live bear	Gallbladder	Farmed bile	Paws	Meat	Hide
China	$500–1,000 (w)	$9–50 / gram (r) $1–2 / gram (w)	$5–20 / gram (r)	$10–80 each (r)	-----	-----
Hong Kong	-----	$1–30 / gram (r)	$13 / gram (r)	$140 each (r)	-----	-----
Japan	$2,256 / cub (w)	$12-$84 / gram (r) $7.50 / gram (w)	-----	$157–254 each (r) $236 / dish (r)	$30–63 / kg. (u) $133 / kg. canned (r)	$400 (w) – $3,000 (r)
South Korea	$7,100–9,722 (r)	$1–210 / gram (r) (or more for a known bear gall)	$69–85 / gram (r)	$429 each (r) $492–700 /dish (r)	$39 / kg. (u)	-----
Laos	$10–180 (r)	-----	-----	-----	-----	-----
Macau	-----	$21 / gram (r)	-----	-----	-----	-----
Malaysia	-----	$1-14 / gram (r)	-----	-----	-----	-----
Nepal	-----	$2–3 / gram (r)	-----	-----	-----	-----
Singapore	-----	$1–33 / gram (r)	$170–230 / dish (r)	-----	-----	-----
Taiwan	$1,800–5,500 (r) $2,000 (w)	$8–30 / gram (r) $10 (w)	-----	$250 each (w)	$34 / kg. (w)	$700 each (w)
Thailand	$900–950 / pet (r) $2,000–4,000 / entree (r) $120–320 (w)	$4–10 / gram (r)	-----	$400–600 / dish (r)	$3.20 / kg. (w) $4 / kg. (r)	-----

(r) retail
(w) wholesale
(u) unknown whether price was retail or wholesale

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